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THE JOURNAL OF LAND & PUBLIC UTILITY ECONOMICS



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THE JOURNAL OF LAND & PUBLIC UTILITY ECONOMICS

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Suburban Land Speculation

By ROBERT WHITTEN*

EDITORIAL FOREWORD

THIS article by the late Dr. Robert Whitten gives us a striking picture of the social wastes of unwise land policies. It might be better, however, to say the losses resulting from the absence of land policies. Throughout our history we have followed "happy-go-lucky" methods in the utilization of our land. We have never had well thought out plans that deserved to be designated as social policies. Happily, we are just now beginning to formulate and put into operation land policies which will, on the one hand, prevent disasters such as have occurred in the past and, on the other hand, promote prosperity.

The present depression is, in my opinion, attributable first of all to the absence of sound plans for the utilization of land in its broadest terms, that is to say, our natural resources. This depression began with the land at least two or three years before the crash in 1929. It was keenly felt in Mon-

tana and elsewhere as early as 1926. The farmers felt it first and then it spread out in wider and wider circles and now the cities, in many cases, are in a worse plight than the farming areas.

A Congressional committee recently has estimated the losses resulting from the absence of proper planning of land uses at \$20,000,000,000. Speculation in land is only one of the bad features and after all, on the whole, perhaps a minor cause for the losses, vast as have been the wastes and suffering caused by speculation. Dr. Whitten's article has the strength of understatement.

I must add a few words about Dr. Whitten, who was my friend and associate. He stands out among the wise and modest men with whom I have been associated during my career. He was so impressed with what had yet to be learned that he was not too proud to go to school after he had already attained distinction in his chosen field as a planner. When I started the School

**Editorial Note.* Robert Whitten, Director of the New York State Planning Board, died on June 6, 1936 at Albany, N. Y. He was born in South Bend, Indiana, and was graduated from the University of Michigan and later took a Ph.D. degree at Columbia University. He first served as legislative reference librarian of the New York State Library, 1898-1907. This was followed by seven years with the New York Public Service Commission, during which time he published *Valuation of Public Service Corporations* (1912) and *Regulation of Public Service Companies in Great Britain* (1914).

In 1914 Mr. Whitten became identified with the city planning movement, serving first as secretary of the Committee on City Plan and Zoning of New York City, then as consultant to city planning commissions in various parts of the country. In 1933 he became consultant to the New York State Planning Board, of which he was Director at the time of his death. In addition to numerous articles and joint publications, he published *Economics of Land Subdivision* (1927) and *Neighborhoods of Small Homes* (1931).

of Land Economics in New York City in the autumn of 1930 he enrolled as a student. Naturally, he made an excellent record. Later our trustees appointed him as full professor in the School of Land Economics. This position he held until he was called to Albany in 1933 as consultant of the New York State Planning Board. He was advanced to the position of Director of the

New York State Planning Board, which position he held at the time of his death.

He was born in 1873 and had before him the prospect of many years of service with growing fame. His friends mourn the loss of a lovable personality, and, like others, feel that his untimely death is unfortunate for the country.

RICHARD T. ELY.

THE social wastes of speculation are well exemplified in the suburban land situation. Acreage that has no prospect of utilization for building purposes in a hundred years rises to absurd heights in boom years and sinks correspondingly with the boom's collapse. Some of it is subdivided into building lots. These lots are not needed. They are bought by people of small means as an "investment." In due course they are (or in all reason should be) abandoned because they are not worth the taxes that are levied upon them.

As shown in the careful study by Messrs. Simpson and Burton, there was excessive speculation during the period 1923 to 1928 in the Chicago region.¹ Farm lands that would not be needed for building purposes within any ascertainable period were bought and sold at values that would scarcely have been justified if they were dead ripe for building operations. Farms were subdivided and the lots retailed to hundreds of thousands of speculators. Most of those subdivisions are still vacant and a large proportion will remain vacant for the next 20 years at least. Many of the lots will doubtless be forfeited for unpaid taxes.

At the start of the boom much of this land was assessed at farm prices. With the progress of the boom, assessments

were gradually increased until in 1928 the assessments, while low as compared with growing speculative values, were several times greater than warranted by sound investment principles.

For Cook County outside the City of Chicago in 1928, 240,000 acres of vacant lands and 335,260 vacant lots were valued at \$593,000,000 or an average of \$1,794 per acre. Messrs. Simpson and Burton have estimated that the true value, speculative inflation excluded, did not in 1928 exceed an average of \$538 per acre, or but 30% of the assessed value. Here is a loss of \$410,000,000; it is some indication of the tremendous wastes incident to present methods of urban expansion. The 335,260 vacant lots were estimated to be more than sufficient to take care of probable growth for a period of 30 years. Most of these lots are a dead loss to the buyers. Doubtless many have been or will be forfeited for non-payment of taxes. The only possible use of the land was agricultural and that possibility has now been destroyed by the many small ownerships.

Value Stages of a Building Lot

Three important value stages may be noted in the development of a building lot: (1) the farm value of the raw acreage; (2) the subdivision value of the raw acreage; and (3) the value or cost of the lot when fully improved and built upon.

By the "farm value" of land is meant

¹Herbert D. Simpson and John E. Burton, *The Valuation of Vacant Land in Suburban Areas: Chicago Area* (Chicago: Institute for Economic Research, 1931).

its normal or income value for agricultural purposes uninfluenced by possibilities of future urban use.

By "subdivision value" is meant the value of acreage when it is ripe for conversion into building lots.

By the "value or cost of the lot" when fully improved and built upon is meant the difference between the normal cost of the building and the total cost or value of the house and lot. The cost of the lot includes the cost of the raw land in the lot and its proportion of the cost of the land in streets and in neighborhood parks and playgrounds. It includes also the cost of lot improvement and planting and a proportionate share of the cost of street and park improvement or of other community services or amenities.

In a fairly typical case in 1930, near a city of less than 300,000 population, farm value might have been \$50 to \$200 per acre; value of land ripe for subdivision might have been \$1,500 an acre; and the value of a fully improved dwelling lot might have been \$1,200 (total cost of house and lot \$6,000). At six lots to the gross acre this gives a total of \$7,200 an acre for the fully improved land. It is difficult to get at the real farm-use value of suburban acreage. Its selling value, even if located much beyond the range of present subdivision activity, is affected by possible demand for various semi-urban, open-development uses and by a possible future demand for subdivision. These purely speculative future possibilities do increase the present sale value of the land; how much depends on the particular stage in the long-term speculative swing. In 1926 the speculative element was large. At present it is small.

Messrs. Simpson and Burton in their study of vacant land values in the

Chicago area estimate average farmland rentals at \$7.00 to \$8.00 an acre.² This was in 1928. The rich prairie soil of Cook County is unusually valuable for truck gardens. The lands around many cities would average much lower in farm value than those in the Chicago region.

Close-in agricultural land has little additional value, even for truck-raising purposes, because of nearness to the city market. The motor truck brings all land within a 50-mile radius into direct competition with the close-in land. Moreover, the close-in land is usually handicapped for agricultural use by the uncertainty of tenure. The capital invested in buildings, improvements, and soil enrichment may be lost if a subdivider concludes that he can make a profit by cutting the land up into building lots and retailing them to small speculators.

Based solely on a rental income of \$7.00 an acre, a capital value in excess of \$100 or \$150 an acre cannot be assumed. If taxes are 2% and interest on investment is figured at 5%, the capital value will be \$100. We are considering here value for farm uses only, with no consideration whatever of possible future urban use.

The Value of "Ripe" Farm Acreage

Assuming that, in 1930, \$50 to \$200 may have stood for the real capital value of an acre of land for strictly farming purposes in the environs of the typical city, what was the value of the farm acre when it was ripe for conversion into urban building sites?

The value of raw land when ripe for subdivision and development is fundamentally dependent on the same general factor that creates land value for other purposes: that is, a capitalization of

² *Ibid.*, p. 28.

income or satisfaction derivable from the highest use for which the land is suitable. Elements in the value of a tract of suburban land are: (1) value for agricultural purposes; (2) value for country estates; (3) value for various open-development uses, such as golf courses, parks, institutions, airports, heavy industries, etc.; and (4) value for subdivision and sale and use for house sites.

The value of acreage will certainly not be less than its value for open-development purposes. If acreage is to be purchased for subdivision into building lots, the cost of the acreage plus the cost of development and marketing cannot normally exceed the total sale value of the building lots. The sale value of the lots, in turn, though dependent on many factors, is fixed within certain limits by the economic status of the families that will buy the lots and build homes upon them.³

A study made in 1930 of sale values of acreage ripe for large-scale building operations in some 20 cities shows a marked variation in acreage values depending on the size of the city and the value range of the houses for which the tract seemed appropriate. The value range of the houses to be erected and sold was of more importance than the size of the city. It was found that for cities under 300,000 population the acreage values in tracts suitable for high-cost houses were normally about 2.5 times the values in tracts suitable for low-cost houses; and acreage values in tracts suitable for medium-cost houses were 1.5 times the values in tracts suitable for low-cost houses. For cities over 300,000 these multiples were respectively 3 times and 1.75 times.⁴

The value of acreage is, of course,

dependent on the profit that can be made from its subdivision and sale. This must in turn depend on: (1) the cost of grading, drainage, and street and lot improvements; (2) the cost of marketing; (3) the current sale price of lots of the most suitable kind; and (4) the number of such lots per gross acre.⁵

This same study also disclosed a fairly close ratio between the value of the lot and the value of the typical house for which the lot is most appropriate. It was found that the value of the lot averaged about 20% of the total value of the house and lot. There is, however, considerable variation in this relation. The normal range is clearly between 16 and 25%. In the cities of over 500,000 the median is generally above and in cities of under 300,000 below the 20% average.⁶

If the lot bears its full share of the cost of neighborhood or community utilities and services, including small parks, as well as all costs of lot improvement (grading, seeding, walks, and planting), these costs plus the raw land costs are quite likely to be at least 20% of the total cost of the house and lot.

While in a particular city at the height of the boom in 1925, the real investment value of suburban acreage might have ranged from a farm value of \$50 to \$200 an acre to a subdivision or conversion value of \$1,000 to \$3,000 an acre, the actual prices obtained for acreage in that year probably ranged from \$500 to \$6,000 an acre. In many cases these lands were bought at these inflated prices by subdividers who staked off the land into 40-foot lots, erected a few mammoth signboards, advertised an auction sale, and "sold out" in a few months' time at an average price per

³ Robert Whitten and Thomas Adams, *Neighborhoods of Small Homes* (Cambridge: Harvard University Press, 1931), pp. 29-37.

⁴ *Ibid.*

⁵ *Ibid.*, p. 31.

⁶ *Ibid.*, p. 32.

acre of \$10,000 to \$20,000. A large share of this spread between acreage price and subdivided price is made up of merchandising costs — advertising, salesmen, and office overhead. Quick sales at inflated prices require an expensive order of super-power salesmanship.

Under the influence of boom psychology the practically worthless so-called house-lot approaches the sale value of the fully improved lot in an established residential neighborhood and the so-called business frontages along the "main avenues" laid out on a subdivision plat take on really fantastic "values," induced by a vision of their speedy occupancy by high-rental business buildings.

The Land Lottery

Most vacant lot buying is pure speculation—not investment. The buyer takes a chance at great and, to him, unfair odds. The total losses are much greater than the total gains. But it is the nature of man to be willing to gamble for high stakes. He is ready to risk a little to gain much, even though he knows he is risking more than the real odds against him warrant. This is true of the honest lottery where the total receipts from ticket sales are ordinarily much in excess of the disbursements for prizes. Land speculation, however, is a lottery in which the grand prizes are so enticing that under the influence of boom psychology men are willing to take odds of 5 to 1 when on any logical, actuarial, or probability basis they should be entitled to odds of 100 to 1.

There are certain distinct disadvantages of land speculation as compared with the ordinary lottery. The land speculator discovers that his purchase price is just a first payment. Thereafter he must make burdensome tax

payments and these payments increase as the assessments gradually catch up with the inflated values. Then there may be interest payments on a mortgage. The land speculator gets in and in most cases he cannot get out without sacrificing all he has put in.

The subdivider of unimproved lots is a merchant—not a speculator. He buys acreage at wholesale from farmers or large-scale speculators in order to be able to retail it in small lots to the little speculators. His business involves risk because he may overestimate the "sucker" market and a high-pressure campaign costs a lot of money. This risk must be compensated for by a high margin of profit. Hence the tendency to higher and higher acreage prices is somewhat restricted.

Of course, tax assessments follow, though with considerable lag, the inflation caused by speculation in acreage and vacant lots. The tax revenues derived from these inflated values constitute a large portion of the total tax revenues of many suburban towns. Indeed, it is a considerable item in the revenue of metropolitan counties and cities. These governments do participate very largely in the profits of the great American lottery of land speculation. The subdividers also participate in these lottery profits. The speculators who buy the lottery chances probably pay out at least \$10 for every \$1.00 that is returned in prizes.

But the tax revenue obtained is not all clear gain. Roads are paved and water mains laid at public expense to aid "development." Scattered homes in scattered subdivisions increase the cost of most municipal services. Standardized street and lot systems, already discarded in good planning practice, will be quite obsolete in 20 or 40 years when the typical boom-period subdivision

will be actually needed for urban expansion.

From the standpoint of municipal economy an honest government lottery would probably be more profitable and dependable than the present tax on the capital value of vacant land. Generally speaking, the evils of gambling in lottery tickets are not as serious and far reaching in their social and economic repercussions as are those attendant on speculation in vacant land.

Taxes and Speculation

As to whether the tax on vacant land tends to diminish or increase speculation is an open question. On the one hand it is argued that a 2% tax on the capital value of the land is a very heavy burden and must tend to discourage the holding of vacant land for speculative purposes. It is doubtful, however, if under boom psychology the thought of the tax burden plays any appreciable part in limiting speculation. It probably is considered most by the speculator in acreage. But in boom times the chances of great gains seem so rosy that taxes appear quite negligible. The subdivider of unimproved lots does not have to consider taxes, because he expects to sell out before taxes are due. The small speculator in vacant lots, to whom taxes based on sale prices will be really confiscatory, apparently never gives the matter a thought.

On the other hand there is some reason to think that the taxation of land at its capital value tends to increase land speculation. Farm land for which there is a possibility of urban use within a period of 20 years does have a partly real and partly speculative capital value considerably above its income value for farm use. As farm land it may rent for \$5 to \$20 an acre. A rental of \$14 an acre will pay 5% interest and allow for a 2% tax on a \$200 valuation. But when

the assessed value becomes \$1,000 an acre and the annual tax \$20 the farm owner has to pay in taxes 43% more than the total rent. Under such conditions sale to some speculator or to a subdivider is the only solution for the farm owner. As land values increase, the tax burden becomes very heavy for the owners of large private estates and also for golf and country clubs. As a result, fine estates and golf courses are cut up into lots many years in advance of any real economic need.

The present spread between farm value and future urban value is so great as to handicap seriously the efficient utilization of a broad belt of suburban land for a period of 30 to 100 years. Even assuming that all land buying is based on a conservative consideration of probable growth and necessary carrying charges, a 30-year period of ripening is quite normal. An investor buying land for \$100 an acre can hold it for 40 years before his investment figured at 5% for interest and 2% for taxes or a total of 7% compounded will amount to \$1,500 an acre. If he buys at \$200 instead of \$100, this period will be 30 instead of 40 years. It is easy to see therefore that most suburban land, even without the stimulus of unreasoning speculation, will necessarily have a capital value substantially in excess of value for farm purposes. The land is partially sterilized so far as effective social utilization is concerned. To this evil must be added the really tremendous social and economic waste and wreckage of the subdivision lottery.

Practically the entire spread between farm value and acreage value when ripe for conversion into building lots is a surplus or residual value. It is not, in general, created by the owner; it has no ascertainable cost of production. It may have cost the owner in interest and

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taxes either more or less than the amount for which it can be sold. The amount that the owner has thus invested does not bear any necessary relation to the amount that it is actually worth to the developer who converts it into building lots or to the small home owners who buy the houses.

It is entirely possible to assume conditions under which acreage ripe for conversion into building lots would possess little or no surplus or residual value above that actual income value possessed by the land when used for farming or other "open" uses. If, for example, the development costs are so increased by high standards of community services and the provision of trees, parks, and amenities that these development costs plus building cost and plus a minimum farm value for the land, produce a total cost equal to the price that can be obtained in the market for the completed house and lot, there

is no surplus remaining that can be used to give additional value to the raw land.

The present normal spread between farm value and value for building purposes can be reduced by social controls that will compel whoever undertakes the responsibility of the subdivision of land into building lots to assume also the responsibility of building the completed neighborhood with a full complement of utilities and community services. If this is done, the range of acreage value will be quite definitely limited. The developer cannot pay more than the limited margin between other necessary costs and selling price and the owner will not take less than the value of the land for agricultural or other semi-urban uses. Possibly by these increased development standards the cost of the raw land for low-cost housing could be stabilized at two- or three-fold its value for farm purposes instead of at 10- to 15-fold as it was in 1930.

The London Sliding Scale: Incentive and Efficiency in the British Gas Industry

By PHILIP CHANTLER*

IN JANUARY, 1936 appeared the report of a Massachusetts Special Commission "established to investigate relative to the sliding scale method of rates for use by public utility corporations engaged in the distribution of gas and electricity".¹ The model which members of the Commission have in mind for possible application in regulating Massachusetts utilities is evidently² the Washington Plan, employed since 1924 by the Public Utilities Commission of the District of Columbia. But the germ³ of the Washington Plan was the Boston sliding scale under which the Boston Consolidated Gas Company operated from 1906 to 1926. And the Boston sliding scale was nothing but the London sliding scale imported by the Minority of the Special Committee appointed in 1905 "to consider the London sliding scale of prices and dividends as applied to gas companies".⁴ Current interest in the more recent developments justifies a review of the English prototype.

At the present time, the sliding-scale principle—to apply some inverse ratio between utility price variations and divisible earnings—is widely employed in the statutory machinery by which Parliament regulates British utility companies. In one form or another it appears in private acts relating to about half the gas companies, many electric power companies (suppliers at wholesale), and some of the electricity distributors; and in 1921 it was applied in

legislation for regulating the railways (steam railroads).

Historical Background

For 60 years the sliding scale has been used in the regulation of British gas companies. From the beginning of the gas industry in 1812, when the London and Westminster Gas Light and Coke Company received its charter, gas companies had obtained the special powers required for their operations through private acts of Parliament, and Parliament came to insert in these acts provisions designed to prevent monopoly abuse. Acts passed after 1840 usually contained a clause limiting dividends to 10% on capital stock and providing that excess profits earned in any year should result in reduction of gas rates the following year. From 1850 maximum prices chargeable for gas also were usually specified in the acts. In the regulation of London's gas supply this maximum price and dividend system grew more elaborate as the 13 metropolitan companies ceased to compete and began to consolidate. A body of Gas Commissioners was established in 1868, charged with preventing excessive rates and defective service, and with securing "due care and management" on the part of the London companies. This experiment in commission regulation proved unsatisfactory and was short lived; frequent protests were raised against the price of gas in London and bills were brought forward to municipi-

* *Ibid.*, pp. 15-17, 21, 36, 39; Appendix C.

* Commonwealth Fellow from Manchester University, at Harvard University, 1934-6.

¹ Commonwealth of Massachusetts, House Document No. 1600.

² See Public Utilities Law of the District of Columbia, § 18.

³ Commonwealth of Massachusetts, *Special Committee Report*, 1906; *Minority Report*, pp. 57-85.

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palize the London gas supply. The only alternative to public ownership seemed to be some new arrangement to promote efficiency in company management without constant intervention by public authority. How provide a public service company enjoying a substantive monopoly with an incentive toward lower costs and prices?

The means found was the sliding scale. The notion of linking dividends payable with prices charged, so that reducing its price would authorize a utility company to increase its dividends, and a price increase would reduce dividends payable, was by no means new. The Sheffield Gas Act, 1855⁵ provided that 10% dividends should be payable if the price of gas was not more than 3s.6d.⁶ per thousand cubic feet (MCF); if the price was higher in any year, only 8% was payable. In a number of private acts passed after 1867 a maximum price for gas and a standard rate of dividend were prescribed; if the price was reduced below the statutory maximum, dividends might be increased on a specified scale. All these early forms related to provincial gas companies, but in 1875 a new bill was brought forward to regulate the London companies under which a standard price and a maximum rate of dividend were prescribed; if the price was raised above the standard, dividends must be reduced. The price was to be fixed at 3s.6d., with a maximum dividend of 10%, reducible by $\frac{1}{4}$ of 1% for every penny in the price above 3s.6d. The Board of Trade took exception to this proposal, but favored a "slide" working both ways:

"Such a provision appears to Her Majesty's Government to be a breach of the existing arrangements with the com-

panies, to which . . . they could not agree . . . [but] it appears to them to be a question well worthy of consideration whether the principle of a sliding scale, in which the price shall vary inversely as the dividend, would not be a more effectual mode of securing 'due care and management' than the present mode of official revision."⁷

The sliding scale in its two-way form first appeared in the Commercial Gas Company's Act of 1875.⁸ Under this Act a standard price of 3s.9d. per MCF was fixed, with a standard dividend of 10%. For every penny by which the actual price charged in any year exceeded, or was less than, the standard price, the dividend payable that year must be decreased by, or might be increased by, $\frac{1}{4}$ of 1% from the standard rate. If, for instance, the price actually charged by the company in any year was 4s.1d., only 9% dividend was payable that year; a price of 3s.5d. would authorize a dividend of 11%.

The other London companies, Gas Light and South Metropolitan, regarded this innovation with misgivings. "If the Commercial Company could work miracles or chose to commit suicide, they were quite willing to let them do so." But in the following session, when they came to Parliament for new powers, both Gas Light and South Metropolitan adopted the sliding scale, with provisions similar to those with which the Commercial was now working. This, with minor variations, remained the general form of the sliding scale in the British gas industry. From 1877, when it appeared in Standing Orders of both Houses, the "slide" was widely adopted by gas companies coming for new powers. Within 3 years 50 companies, and within 25 years 200 companies—almost half the statutory

⁷ Return of the Board of Trade to the Parliamentary Committee on the Metropolis Gas Bill, 1875.

⁸ 38 & 39 Vict., ch. 200.

⁵ 18 & 19 Vict., ch. 14.

⁶ Take 1 shilling as 25c and 1 penny as 2c.

companies in the industry—were operating under the sliding scale.

Obstacles to Statistical Measurement of Sliding-Scale Results

At this period the sliding scale in the British gas industry was made the subject of several investigations by those who were interested in the possibilities of its application in this country⁹. In the course of these studies it was natural that attempts should be made to obtain some measure of the efficacy of the sliding scale from the official statistics relating to gas companies.¹⁰ Reductions in costs and prices by sliding-scale companies over periods of years were cited. But merely to cite reductions in prices charged by "slide" companies over a period of years is quite inconclusive if other important factors are at work making for reductions of costs during that period. For example, it proves nothing at all to show great reductions in the costs and prices of the companies operating under the sliding scale during 1875-1900. These were years of heavy reductions in the general price level¹¹ which would be reflected in some degree in gas-making costs. The current improvements in gas-making technique, utilization of by-products, and the rise of cooking, heating and power loads would all tend to reduce gas companies' unit costs. And there were the external stimuli provided by the beginning of the electric light industry, and the widespread tendency of local authorities to take gas supply into their own hands at that period. The reductions of costs and prices in "slide" companies might be wholly accountable

in terms of such factors, and the sliding scale be wholly irrelevant. This method is as questionable as taking the reductions in rates charged for electric current over the last decade in the District of Columbia as a direct measure of the efficacy of the Washington Plan, and ignoring the effects of a rapid growth in the population of the area and of boom conditions in the chief local industry, Federal Government.

It might seem less objectionable to compare results of sliding-scale and maximum-price companies over a period. But this too is of doubtful value. Many variables which affect costs as between area and area, company and company, and which are wholly independent of management, can neither be accurately discounted nor treated as constant in such comparisons. Net coal costs vary with freightage (distance from coal fields) and with local markets available for coke; distribution costs per MCF with consumer density and consumption per consumer; gas lost will depend perhaps as much on the geological nature of the supply area as upon standards of construction and maintenance. Other such factors influence the cost of manufacturing and distributing gas, as between different companies, and are largely or wholly external to quality of management.

The effects of the local variables would be reduced by taking a large number of each type of company and averaging in some way the results for "slide" companies and for maximum-price companies. But even here there remain obstacles to any positive con-

Great Britain (New York: Public Service Commission for the First District, 1914).

¹⁰ See Massachusetts Special Committee, *supra*, pp. 63-4, 69-70; Matthews, *op. cit.*, 2nd. ed., pp. 79-82, 128-34; Whitten, *op. cit.*, pp. 174-8, 180-4.

¹¹ Sauerbeck's index of general commodity prices in England falls from 111 in 1873 to 61 in 1896 (average 1867-77 = 100).

⁹ See Massachusetts Special Committee to consider the London sliding scale, 1906, *supra*; Nathan Matthews, *The Public Regulation of Gas Companies in Great Britain and Ireland* (Boston: Rockwell & Churchill, 1905; 2nd. ed., 1915); W. H. Gardiner, *The London Sliding Scale* (New York: N.E.L.A., 1906); R. H. Whitten, *Regulation of Public Service Companies in*

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clusion. It is notable that the average size of the "slide" companies is much greater than that of the maximum-price companies; smaller units of the industry have tended to remain under the older system. If mere size is a factor making for greater economy in gas-making, it might be that any diseconomy shown by the maximum-price companies as compared with the "slide" companies was attributable simply to their smaller size.¹² Here again lower costs and prices in the "slide" companies might be entirely independent of the operation of the sliding scale.

Even if a group of "slide" companies shows average costs and prices appreciably below the averages of a group of maximum-price companies of comparable size, this evidence is ambiguous. There remains the problem of determining causal relationships. It may be that the more efficient companies adopt the sliding scale on account of the benefits which they expect to gain under it, rather than that some companies show greater efficiency because they operate under the "slide." The causation may be the reverse of what the statistical comparisons assume. To some extent this is the actual situation. Those companies which still operate under the maximum-price system tend to be those which do not expect to obtain greater dividends through more efficient management, under the machinery of the slide, and most of the progressive companies converted to the sliding scale years ago. In so far as companies have adopted the sliding scale because they are efficient, rather than are efficient because they have adopted the sliding

scale, any statistical demonstration of greater efficiency in "slide" companies as compared with maximum-price companies tells little about the efficacy of the sliding scale itself.

A further relevant factor is the auction clause. In every sliding-scale act except the original Commercial Act of 1875 a clause has been inserted providing that all new capital stock shall be sold by public auction to the highest bidder, all premiums received being added to the capital of the company, but not entitled to dividend. This provision has meant in many cases a very appreciable reduction in cost of capital, as compared with the former practice of allotting new stock to existing shareholders at par. But so long as maximum-price companies did not come to Parliament for increased powers after 1877 (when the auction clause came to be generally inserted in gas acts), they were not subject to the auction clause.¹³ As a class, therefore, maximum-price companies might for years be paying more for their capital than did "slide" companies, and this be reflected in higher costs and prices. But the auction clause is no more inherent in the "slide" system than in the maximum price; it is still another variable in the comparison independent of the sliding scale itself.

In the face of all these obstacles to satisfactory statistical results, perhaps the most positive conclusion suggested is that there seems to be little statistical evidence either for or against the sliding scale. This is the general conclusion of the writer who had done the most elaborate research on these lines yet published.¹⁴

¹² Common experience suggests that the large undertaking can usually sell gas cheaper than the small, but the rule is subject to many exceptions, and any general conclusion seems unjustified.

¹³ Therefore, since their capital structure consisted predominantly of common stock, they might con-

tinue to pay out 10% on invested capital—a handsome return in a well-established business.

¹⁴ C. S. Morgan, *Regulation and Management of Public Utilities* (Boston: Houghton and Mifflin, 1923), pp. 162-70.

Theoretical Considerations

Statistical evidence failing, it is necessary to fall back on some theoretical considerations and on such direct evidence as is available. There has been a certain amount of acclamation of the sliding scale, mainly by observers outside the industry. The Parliamentary Committee on Metropolitan Gas Charges, 1899, reported that they had

"no hesitation in coming to the conclusion that the principle of the sliding scale is . . . an excellent one and should be maintained . . . the arrangements have had a beneficial effect upon the gas undertakings, especially as far as the consumer is concerned,"

and they had

"received no evidence to induce them to propose any alteration in the system."

The Minority of the Massachusetts Special Committee of 1906 believed

"that the partnership principle of participation in profits and losses by the companies and the consumers, upon which the sliding scale rests, has proved an inducement to the gas companies in Great Britain to manage their business prudently, skilfully, and economically . . . and that it has surpassed [all other methods of control] in establishing respect and confidence between the companies and their consumers and employees in London . . . The system has now and for many years has had the cordial support of the consumers and the companies in London, of both Houses of the British Parliament, the London County Council and the Board of Trade, and of the wage-earners and their representatives,—in fact of the overwhelming majority of all classes and conditions."¹⁵

After surveying for a second time the working of the sliding scale, Nathan Matthews wrote in 1915 that this was the "final solution of the gas price problem in Great Britain".¹⁶

¹⁵ Massachusetts Special Committee, 1906, *op. cit.*, p. 58.

To understand the attitude of those currently concerned with the operation of the sliding scale, attention must be given to its history and development since 1915, and to the practical aspects of certain theoretical problems which it raises.

Cost Factors. The theory of the sliding scale is to reward greater efficiency in management (reducing prices) and to fine inefficiency (increasing prices), by authorizing an increase, and compelling a reduction, of dividends payable. But suppose the changes in price are not the result of changes in efficiency. To take the obvious specific instance, should reductions of gas prices as a result of cheaper gas-making materials caused by reductions in the general level of prices authorize increased dividends; and should rising costs of materials compel a reduction in dividends? The only price changes which should be counted in adjusting dividends payable under the "slide" mechanism are those strictly related to quality of management; price changes resulting from factors external to management can properly be treated only by readjusting the standard price so that their influence is neutralized. In other words, if dividends payable under the "slide" are going to vary with managerial efficiency alone, any price increase external to management must be added to the existing standard price, and any external price reduction must be subtracted from the standard price; then this new figure must be used as the standard from which dividends payable are calculated under the "slide." The standard price must be adjustable with every price change not related to quality of management.

Both phases of this problem—external cost reductions and external cost increases—have been encountered in

¹⁶ Matthews, *op. cit.*, p. 140.

the regulation of British gas companies under the sliding scale. The "slide" was introduced at the beginning of a 20-year period of falling prices; gas-making costs fell, prices correspondingly, and without unusual efficiency on the part of management, many companies were authorized under the sliding scale to pay out, and did in fact pay out, dividends of 10% to 15% on par. After 1890 these high nominal dividends attracted the attention of some local authorities, several of whom came to Parliament for reductions in the standard prices of "slide" companies operating in their respective areas. At first the Board of Trade refused to modify the terms fixed; bargains had been struck and must be honored. But in 1899 a reduction was made in the standard price of a provincial gas company,¹⁷ the standard prices of all three London companies were lowered after 1900, and 23 similar instances followed before 1914. The principle was definitely established that standard prices should be revisable with changes in gas-making costs. But no statutory machinery was set up for making such revisions; Parliament would only reduce a standard price when the company came for new powers, and only then when there seemed to be clear evidence of excessive profits.¹⁸ The ordinary "slide" company would tend to benefit fairly easily under the scale during that period of falling gas-making costs.

But after 1914 the picture changed. During the World War gas undertakings found their costs sky-rocketing. The London Gas Light Company, for instance, had to meet cost increases of

82% in coal, 89% in labor, 109% in steel, 293% in lubricating oil, and 700% in freights (Newcastle to London). Such cost increases were paralleled in other companies during 1914-18, and many had to raise their rates substantially to cover operating costs. "Slide" companies found their dividends greatly reduced under the terms of the sliding scale and their stocks traded at a heavy discount. In 1918 a Select Committee on Gas Undertakings inquired into the situation, and reported in favor of a temporary suspension of the sliding scale. Under the Statutory Undertakings (Temporary Increase of Prices) Act, 1918¹⁹ the "slide" was suspended for two years; in the interim the companies were authorized to charge rates sufficient to pay dividends equal to $\frac{3}{4}$ of the old standard rate, or $\frac{3}{4}$ of the average dividend for the three years immediately before the War, whichever was the less. In 1920 the Gas Regulation Act²⁰ rehabilitated the sliding scale; "slide" companies were awarded new standard prices equal to their old standards plus any increase in cost per therm²¹ since June, 1914, "due to circumstances beyond the control of, or which could not reasonably have been avoided by, the undertakers." This Act goes on definitely to provide that standard prices shall be revisable by the Board of Trade, either way, with such external cost changes, on the petition of the companies, or of local authorities in their supply areas. This provision goes far to remedy one major defect in the original sliding-scale arrangements, but it put a new and difficult task on the Board of Trade, differentiating between cost changes

¹⁷ Lea Bridge District Gas Act, 62 & 63 Vict., ch. 189.

¹⁸ On account of the auction clause, high nominal rates of dividend on par would tell nothing about return on invested capital.

¹⁹ 8 & 9 Geo. V, ch. 54.

²⁰ 10 & 11 Geo. V, ch. 28.

²¹ The Gas Regulation Act also provided for charging on the basis of the thermal content of the gas supplied, to replace volumetric charging.

related to and those external to quality of management in the gas company.

The Standard-Price Factor. This experience with the sliding scale in the British gas industry supplements theoretical considerations of the treatment of internal and external cost changes. There is a real problem here in the sliding-scale arrangement. It is a quasi-automatic system only in a very restricted sense; if it is to operate effectively as an incentive to greater efficiency and a check to slack management, and to be equitable as between investor and consumer, the sliding scale must provide for the revision of the standard price by public authority from time to time with cost changes external to quality of management. But sliding-scale arrangements employed in this country have also failed to make adequate provision for such external cost changes. The Act²² applying the London sliding scale to the Boston Consolidated Gas Company fixed a standard price for 10 years, with no provision for any adjustment by the Gas and Electric Light Commissioners, a factor making for the ultimate repeal of this legislation in 1926. As applied in the Washington Plan, the "slide" appears to have no provision for change with changing external costs; it may be that a changing economic environment imposed on a rigid system of regulation will result in the recurrence of conflicts such as that of 1931, when the Public Utilities Commission of the District of Columbia sought to revise the Plan as applied to the Potomac Electric Power Company.²³ The differentiation required may be extremely difficult in practice, but it is fundamental, if the sliding scale, or variant of the "slide," is to operate with any precision.

Rate Structures. Another defect which has appeared in the original sliding scale is related to the problem of rate structures. From the time when gas meters were introduced in the 30's of the last century, gas was sold in Britain under straight-line meter rates, each company having a single price per MCF, to which the statutory provisions related. This single rate per MCF compared with the prescribed standard price of a "slide" company determined the dividend payable. The straight-line meter rate was not altogether inappropriate in the days when gas was used almost solely for lighting and when the industry enjoyed a substantive monopoly. But with the extension of gas to other uses—cooking, heating, power—and the rise of electric competition, the straight-line meter rate was no longer adequate. The sliding-scale machinery proved an obstacle to the development of promotional rate forms, more related to the cost characteristics in gas supply. The price charged for gas, in the calculation of dividends payable under the sliding scale, has always been taken as the highest price charged to any consumer. This means not only that a "slide" company gets no credit in dividend authorization for selling gas in large quantities to industrial consumers (except in so far as such a policy cheapens gas to the smaller consumers) but also that unit price must be kept low against the very smallest consumer. This immediately makes minimum bills, service charges, and initial high-rate blocks impractical; to take measures to reduce the weight of its uneconomic consumers might leave the company with no dividend legally payable, where a very small consumer had to pay a very high unit charge. It is

²² Massachusetts Acts of 1906, ch. 422.

²³ See Irving Bussing, *Public Utility Regulation and*

the So-called Sliding Scale (New York: Columbia University Press, 1936), pp. 127-8.

arguable that one of the main factors in retarding the development of gas-rate structures in Britain, and therefore in cramping the industry, has been this feature of the sliding scale. The straight-line meter rate is still quite widely employed by British gas companies. It would appear that the "slide" had the same effect when applied to the Boston Consolidated Gas Company. In its *Report* of February, 1926, the Massachusetts Special Commission on the Necessaries of Life considers the problem of house-heating by gas. The Boston Consolidated Company is cited as recognizing the possibilities of the house-heating field but finding itself unable to go into that field "due to the peculiarities of the special act under which it operates." If this is the fact, concludes the Commission, public interest requires that the sliding-scale Act be repealed.²⁴ The Act was repealed in the session of 1926.

Depreciation and Maintenance. Experience with the sliding scale in the British gas industry has revealed a further defect which is not so obvious but which has been so serious in specific cases that at least one executive in the industry has referred to the slide as "the curse of the gas industry." The sliding scale authorizes the payment of higher dividends when prices are reduced. But prices may be reduced not only by getting costs down through greater efficiency but also by failing to collect and hold an adequate allowance for maintenance and depreciation. In cutting its rates to obtain higher dividend authorization, a "slide" company might be running down its plant, and securing present benefits for its shareholders and consumers at their cost in

the future. It is contended that this has in fact happened with certain British companies. The danger is all the more relevant among British gas companies because Parliament has never allowed the accumulation of any depreciation funds as such, but there is evidence that this defect was also imported with the sliding scale at Boston in 1906. When in 1916 the Massachusetts Board of Gas and Electric Light Commissioners investigated the operation and effect of the "slide" as applied to the Boston Consolidated, they found that there had been a serious failure to make allowance for depreciation of the plant, and warned that this was a grave danger in the operation of the sliding scale. "The disastrous results of such a policy, if long continued, need not be dwelt upon."²⁵ This is a real factor that should be considered in any estimation of the sliding scale. It still further reduces the significance of the statistical comparisons discussed above, for any apparent advantage in prices and dividends on the part of sliding-scale companies might be gained by depletion of capital.

The "Slide" Ratio. When the sliding scale was introduced no explanations were given as to how standard prices were fixed and how the ratio of the "slide" was determined. In practice, the standard price was usually fixed at the old maximum price of the company, lower perhaps if there were complaints of high rates, and higher if the company had not been paying its 10% dividends under the old system. But it is difficult to see any rule at all that was followed in fixing the ratio. True, at the prices fixed in the first sliding-scale acts (those of the London companies), prices and dividends varied under the "slide" in

²⁴ Commonwealth of Massachusetts, *Report of the Special Commission on the Necessaries of Life*, February, 1926, House No. 1250, pp. 79-80.

²⁵ 32nd *Annual Report*, Board of Gas and Electric Light Commissioners, 1916, pp. 467a-70a, 473a.

roughly similar proportions, but the appearance of precision and equity is illusory. Such a scale does not determine the relative *amounts* to go in reduction of price and increase of dividends (and, of course, the reverse); that relation will depend in part also on the ratio of gas sold to capital, and will change as that ratio changes. On this account, the terms of the "slide" have been subject to a certain amount of doctoring in specific instances when companies have come to Parliament for new powers. But this lack of precision and the practical difficulties which it has raised in some cases are not themselves the chief defect in the sliding scale on this point. The significant disadvantage is that the less the quantity of gas sold per share of the company's capital stock, the greater is the relative total amount which under the "slide" goes to dividends, and the less to price reduction, since the fixed proportion is between reduced *price per unit* sold and increased *return per unit* of stock; the danger here is that the expansion of the company's gas sales may, theoretically at least, be unduly retarded and promotional methods neglected.

The "Basic System"—Most Recent Form of the Sliding Scale

Some of the deficiencies which have appeared in the sliding-scale machinery were eliminated in the "basic system," a thorough-going variant on the old "slide" which the South Metropolitan Gas Company introduced in 1920, and which was embodied in their act of that year. Under this scheme a basic price is

fixed²⁶ for gas and a basic rate of dividend specified. If the *average* price charged²⁷ is below the basic price, evidently total revenue is below "basic revenue" (revenue hypothetically earnable with a uniform application of the basic price). The difference is regarded as a sort of gift from company to consumers, and termed "the consumers' share." It measures the difference between what the company is allowed by law to collect and what it does in fact take from its consumers. An amount equal to $\frac{1}{3}$ of the "consumers' share"²⁸ in any year may then be divided equally between stockholders, in extra dividends, and employees.²⁹ This, with variations, is the modern form of the sliding scale in the British gas industry; by the end of 1933 it had been adopted by 21 of the "slide" companies, including some of the largest units in the industry, and together making more than half the gas made by all the 414 statutory gas companies in Great Britain.

The merits of the basic system as against the old form of the sliding scale are clear. Under the basic acts there is included not only provision for a periodic consideration of the arrangement by Parliament, but also the right for either the company or the local authority to come to Parliament at any time for an increase or a decrease of the basic price, with external cost changes. These provisions should obviate the sort of difficulty experienced with the original "slide" in periods of great changes in the general level of prices.³⁰

divisible between stockholders and employees has varied in different acts embodying the basic system.

²⁶ The method by which the employees' share is to be distributed has varied in different basic acts; e.g., bonus wage payments, dividends to employee co-partners, transference to special employee welfare funds.

²⁷ It should be noted also that under the basic system the basic rate of dividend is a sort of statutory minimum, payable so long as funds are available. This insures

(Footnote 30 continued on page 237)

²⁶ Fixed as a standard *average* price, given normal management.

²⁷ In later basic-price acts Parliament has usually weighted the average in favor of the small consumer by reducing the credit to consumers' share in the case of supplies to large consumers at prices appreciably below the ordinary rate.

²⁸ The proportion of "consumers' share" equally

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The relation of rewards to the company, under the basic system, to an average of prices charged in any year will tend to remove the great obstacle to promotional tariffs which the old "slide" raised by linking dividends simply to the highest price per unit paid by any consumer. It has been argued that, under the original "slide," the relative amount going to increased dividends might be increased by keeping down gas sales (*supra*, p. 236); under the basic system these relations are fixed, and the amount payable to stockholders and employees will be increased as the sales increase. By contrast with the original form of the sliding scale, the basic system has a promotional effect.

The provision that the company's part of the consumers' share shall be divided equally between stockholders and employees raises a problem of theoretical interest and practical importance. The purpose of all "slide" systems is to give rewards for greater efficiency in operation. But who should receive these rewards? The shareholders? It has frequently been stressed of recent years that in the modern corporation there is little direct connection between ownership and management. Will the most effective stimulus to better management be provided by extra payments to absentee owners? It is interesting to note that the first act providing for a sliding scale in the gas industry, the Sheffield Act of 1855 (*supra*, p. 229), gave rewards for lower gas rates not only in higher dividends to stockholders but also in extra remuneration to the directors of the company.

(Footnote 30 continued from page 236)

the company against drastic reduction or extinction of its dividends, pending adjustment of the basic price, in periods of steeply rising prices.

Ten years later this provision seems to have been dropped, and under the "slide" arrangements which came to be widely adopted after 1875 only the common stockholders were rewarded. The basic system passes over the question of rewards to the paid managers, but seeks to give the employees a stake in the efficiency of the undertaking. There is a case for dividing the company's reward for increased efficiency between stockholders, managers, and employees.³¹

Conclusion

During the 60 years the sliding scale has been increasingly employed in regulating British gas companies; its latest form, the basic system, is likely to be widely used in the future; and the principles of the "slide" are now carried over into regulating the electricity industry as well as the railways. Has the sliding scale proved effective as a stimulus to efficiency and as an aid to reducing rates? Any positive answer seems unjustified. Statistical evidence is of little value, and the opinion of those immediately concerned is clouded by considerations of institutional defects experienced under the actual working of the sliding-scale machinery. Whether it has or has not operated as an effective encouragement to greater efficiency in management is doubtful; what can definitely be said is that the sliding scale, in one form or another, is accepted today by utility companies, consumers, and controlling authority in Great Britain as a possible alternative to the public ownership and operation of the utilities.

³¹ The Massachusetts Special Commission on the Sliding Scale (*supra*, p. 228) considers this sort of arrangement (*Report*, pp. 38-9).

The Education of a Public Servant

By EARL H. BARBER*

UNDOUBTEDLY I had the requisite technical knowledge, but was that enough? Those who assigned me the task of dealing with such complaints against gas and electric companies as reached the State House evidently thought it was, or at least hoped it might be. I hoped so too. But a sense of bleak incompleteness came over me when I confronted my first client.

She was a tall woman: tall, angular, and determined.

"Me bill is too big."

"What makes you think so?"

"The size of it."

"I know, but what makes you think it's oversize?"

"Here, look at it yourself, if you think I can't read!"

And that, according to her notion, was that. She had presented her case, she had proved it with indisputable evidence; all that remained was for me to execute judgment. She settled back in her chair to supervise the execution, and I, with what might pass for weighty consideration, settled back into mine.

Once there had been a joke. A Chinaman entered a watchmaker's establishment, placed the hands of an alarm clock on the counter, and announced, "Too much bye 'n' bye."

That had been a joke once, but there was nothing funny about it now. It was on all fours with that gas bill reposing on my desk and the determined woman who watched for the first sign of an attempt to evade my obligation to cancel that bill and substitute one to her liking.

What could be done in a case like

this? Tell a woman who wore a hat like Queen Mary's that all gas meters were tested, sealed, and recorded by the state before they were placed in service? Show her the sustained accuracy that meters revealed, decade after decade, in check tests made in response to thousands of complaints like hers? Tell her that the law required gas to be sold by meter: that the meter was installed for her protection? Tripe, baloney, and don't you think you're smart!

My bill is too big—There it is—Read it yourself . . . Before that dominating conviction what logic could stand?

None. None whatever. The mentality confronting me across the desk was not susceptible to logic: it was simple, elemental. It was an unreasoning, primal thing like one of nature's laws; existing, self-sufficient, beyond reach of human rationalization.

And over in the offices of the gas company, across the river, was just such another state of mind. She's used the gas: now let her pay for it!

Between them there was little to choose. One, of course, had the force of logic, but it was clear even to the technically trained mind that the realm of logic had been left behind. What logic was there in a company's holding its work done when unfinished business, crude and elementary as this, remained to be handled at public expense?

I thought of the president of the company sitting in his paneled office, precise and immaculate under the oil portrait of his predecessor, push buttons bringing every department of the huge corporation at his call. I thought of him, I thought of the tolerant grin he would bestow on my predicament, and

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at the thought reached for the telephone.

That the president was peeved at the interruption did not bother me in the least; I was peeved myself.

"One of your customers is here, Sir, with a bill that's too big."

"Well, what of it? My own bill is too big, but I can't do anything but pay it!"

"That's where you're wrong. You can do something. You can make a complaint to this office like anyone else. If you come right away you can take care of this customer, too, without making a special trip for the purpose!"

For an appreciable time the telephone whispered phantom sounds of its own devising. Then came a cautious inquiry.

"Is it a him or a her?"

"The latter, and how!"

"Where does she live?"

"Sullivan Street; Number 28; down by the docks."

"All right," came the response, cautious no longer, but hearty and confident. "Ask her when I can see her at home. When it will be entirely convenient for her. Be sure about that. Tell her I'll suit my time to hers."

With something of the feelings of Rutherford on first beholding an element spontaneously changing to something else, I saw the stern-eyed suspicion across the desk disintegrate and change—change to blank amazement, to incredulity, to an all-pervading delight.

"Could he come about half past twelve? When Pat comes home f'r 'is dinner?"

Left alone in the office I settled back to consider this contribution to the art of applied science. The incident was complete; there was no need to speculate about what would happen over on the waterfront at half past twelve.

That aristocrat of motor cars would chime its way slowly through the gamins

of Sullivan Street until it drew up at the door of Number 28. The immaculate Alton Wells, moss rose in his buttonhole, would get out and ask the circle of wondering faces for the residence of Patrick Finnegan; not that his driver did not know exactly, but to indicate unmistakably to the neighborhood the object of his attention. Then he would pull the bell of Number 28—if the knob still held to its wire—and pass out of sight while the gamins scattered to broadcast the distinction come to the house of Finnegan.

And that night at the lodge room of the Mortar Mixers' and Hod Carriers' Union, Patrick Finnegan would take a Partagas out of his pocket, eye it critically, and announce, "Well, boys, I guess I'll have me a smoke av a real seegar."

"Where were ye after stealin' that?"

"It's one av thim give t' me by me friend Alton Wells, the President av the Gas Company . . . Me and him had a bit av business he come t' the house t' see me about this noon."

Meanwhile what of the big bill, or what of the complaint that had been such an impasse? Forgotten. Forgotten completely, or if remembered at all, recalled in the roseate haze of an attention not to be reckoned in terms of dollars and cents. It wasn't a big bill, really; it was just something to talk about in the absence of something more exciting.

So much then for my first big-bill complaint. But what of those to come? Alton Wells couldn't spend all his time making pastoral calls. But he wouldn't need to. When he returned to the office he would press one of the buttons on his desk, and the head of the customers' bureau would qualify as his substitute thereafter.

Which was as it should be. Big-bill

complaints didn't threaten to be such a blight after all.

* * *

As a matter of fact they were not. They continued to come, of course. It took time to get all the companies in the state out of the notion that they could merely insist on payment and refer public resentment to me. Also there were a lot of complaints which involved more than the simple conviction that the bill was too big—complaints which suggested hidden causes, aroused curiosity, and set the analytical faculties to work.

In such cases I was often aided by a device known as a "complaint meter": a device which recorded on a clock-driven chart the time at which each lot of gas was used. That unfailing witness, sometimes installed without the complainant's knowledge, brought many interesting conditions to light.

One thrifty housewife was sure that a jump of two dollars a month in her gas bill indicated an incorrect meter, because there had been no change in the size of her family nor in its domestic regimen. The complaint meter showed a large amount of gas used regularly each Saturday afternoon. The amount—about 500 feet—was equivalent to 2,000 feet a month. This, multiplied by \$1 a thousand, made \$2 a month, or the amount of the jump in the monthly bill.

What had been going on in that kitchen Saturday afternoons? Nothing: that is, nothing except for the last month or so when they had tried baking their own beans for Saturday night!

A genial old Irishman brought a different complaint: it was not so much the size of his bill that bothered him as a capriciousness inconsistent with his ordered household. Year after year the bill had stayed between \$2 and \$2.50,

but now varied erratically between \$3 and \$4.

A complaint meter showed gas passing when all fixtures were turned off. The company's inspection of the house piping showed where son-in-law, in a third-floor apartment provided with a separate meter, had bored through the floor to draw a part of his supply through his benefactor's pipes.

The complaint meter solved other cases too, so pathetic that as soon as I learned to guess their nature from superficial characteristics, I left them alone. Not a few men, I found, had a habit of setting the furnace drafts in the morning, and examining the fuel bed at night for the purpose of detecting any tampering with their arrangements during the day.

Left at home for ten hours to freeze, the wives had recourse to gas for at least some localized warmth. Gas stoves told no tales. Neither did the complaint meter, except to their private ear.

But the services of that useful device were not always required. Some of those who came to the State House had done a very creditable amount of investigating for themselves. One, who reached his end by primitive methods, was a young negro who kept bachelor quarters in one of the old brown-stone houses remaining in a former residential district of the city. His apartment was on the first floor, directly over a Chinese laundry in the basement.

When he felt sure his bills were too high he went through the conventional step of having his meter tested and reported correct. Then he suspected his pipes had been tapped.

To prove his suspicion he waited until the company read the meter, then sealed off every gas outlet, and went without gas for an entire month. After the meter was read again he received a bill,

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smaller than usual, but large enough to account for the excess of former bills.

He neglected to pay the bill, ignored the various notices sent out by the company, and eventually one evening let in the company's man who came to shut off the meter. While this was being done, he went out on the sidewalk where he could watch the windows above and below his own.

An excited cackling came from the basement laundry as a single gas flare above the counter faded, and went out, leaving the front of the establishment in darkness.

On the next night he observed the counter light burning, assumed it had been connected to the proper meter, paid the delinquent bill, and had the meter turned on again. When the next month's bill showed a normal amount he brought the results of his investigations to the State House—to find out how he could compel the Chinamen to pay for the gas they had stolen.

If he had taken the company into his confidence in the beginning, the case would have been investigated in a few days rather than months, and without inconvenience to him. Or if he had come to the State House at the outset he would have been shown how to make use of his meter in a way that would have yielded the necessary data in a single evening. But a dark skin is not accustomed to the protection of politicians or a paternalistic state; it fends for itself like a wild thing, alone, with means of its own devising.

Nearly all troubles of consumers could be solved by an intelligent use of the meter, but they persist in regarding it as a thing of mystery and ill-omen, or inscrutable at best. Yet there was one woman who used it effectively in a very unusual case.

The conditions she described seemed

almost incredible. When no gas was being used, the hand of the meter was creeping slowly, although there was no odor of escaping gas. Calculations made from her recorded observations showed that the creep of the indicator was at the uniform rate of 1,100 feet a month. Eleven hundred feet a month and no odor of gas, when a leak of $1/10$ the amount would have made the house uninhabitable!

Yet there could be no doubt about the facts. She had sketched the position of the hands of the dial at recorded times, she had summoned the company, but even a practiced nose could not smell a leak.

A foot-by-foot inspection of the piping was required to solve the riddle.

Down in her cellar a gas pipe passed close to a chimney. On the side of the pipe pressed against the chimney was a haircrack in a fitting—an unusual occurrence in itself. But the bricks in the chimney in the vicinity of the leak were granulated by frost, enabling the leaking gas to pass through their porous substance into the updraft of the flue. And, finally, a number of lobster traps, stored in the cellar for the winter, brought the stinging scent of old trap bait to mask the naphthaline fragrance of such small traces of gas as might fail of direct passage to the flue.

Here was a group of three simultaneous improbabilities; more than enough to make one careful to discriminate between the improbable and the impossible thereafter.

* * *

But if experience taught caution in diagnosis, it eventually brought confidence; and a time came when the results of many investigations—my own and those made by consumers in their own behalf—placed me in an embarrassing position. I could not quite meet

the requirement of the Celestial with the alarm clock. Given only the hands I could not fix the works; but from the mere hands, or the external evidence that something was wrong, I could often make a diagnosis.

The diagnosis sprang from a combination of experience and inspiration; it was essentially "unscientific," but in practice it became very potent. Given a list of a complainant's bills for a year or two, I could tell at a glance the cause of the apparent extortion.

This was embarrassing because it savored of black magic, or that blacker thing called "collusion," when I wrote down some figures involving only dollars and cents, looked at them, and then presumed to speak with authority on something which obviously I could know nothing about.

"Will you please tell me how you can stand here on the sidewalk and, just by looking at a list of my bills for the past year, tell me my gas meter is correct?"

"No. The ways of an expert are beyond comprehension: at least to the ordinary mind."

This was said to an acquaintance on his way to apply for a meter test—an acquaintance who was man enough to telephone later that I was not a real expert after all. The meter had not been correct as I had predicted: it was 3% slow!

Even to me it was sometimes surprising what the figures revealed. A large bill following one which was unusually low showed the automatic correction of a previous mistake in meter reading, or a so-called "sidewalk reading" in which the formality of consulting the meter is dispensed with. A large bill following a skipped reading called attention to a notice stamped in red ink—"This bill covers a period of two months"—which had been com-

pletely overlooked in the panic engendered by the unusual amount of the charge.

And so for bills received in January but reflecting the jollity of the holiday season; canning bills of September; or May bills revealing the judicious use of a gas range to temper the morning air after the furnace had been let down for the summer. So also for numerous other causes.

A very conscientious state official once brought in a set of figures which bore prima-facie evidence of absurdity. For a period of several months his client's bills had held around fifty dollars instead of a normal four or five.

"It looks to me as if your client was making hooch."

"What? . . . See here. He isn't that kind of man, and I'm not interesting myself in that kind of cases. If you've got any such idea as that in your head you'd better get rid of it right away!"

Contrite, I telephoned to the company and asked for an immediate inspection of the premises. Half an hour later the company replied, and I made out a progress report. There was not much to be said, but I filled out the conventional form.

To: The Hon. Caleb A. Wainwright.
Subject: Big gas bills at 22 Winthrop Avenue.

1. Admission to the above premises, on this date, is contingent on the password—"Can I borrow your shovel?"
2. Should I borrow the shovel, and if so, for how long?

In one respect the honorable gentleman was right. He did not interest himself in that kind of case. Even my memorandum was not acknowledged.

But if experience enabled me to speak with authority, it also taught me to speak in the language of the people: so thoroughly that it threatened to dis-

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qualify me from doing anything else. However, that did not occasion much regret.

If I sometimes recalled the time when I could discriminate between such terms as "energy" and "power," or if sometimes a cultured eyebrow lifted a bit when I spoke of electricity as "juice," I accepted my limitation philosophically. The highbrow understood.

* * *

"Is this where I get inflammation?"

An ample woman stood in the doorway, uncertain, nervously glancing at a worn address-slip in her hand.

"What about?"

"The 'lectric."

"Come in."

To the ear of the purist the dialogue might have seemed lacking, but to the ear of experience it was entirely satisfactory. It told me the nature of the woman's complaint—that she wanted electric service and thought her application had been denied. It also told me she belonged to the class which needs help and is grateful when it gets it.

If she said she was looking for "inflammation" it was because inflammation came easy to her. Inf'mation, infamation, inflammation: much easier than the Billickin's "information."

It came easy to me, too. All I had to do was take her name and address, and tell her to go home until I could write her a letter. The company would have all the information that was required if she really had made an application.

Perhaps she had not. Perhaps she had never gone nearer the company than some ditch-digger or manhole attendant, identified with the company only by proximity to the white initials of the red warning-flag on a street-barricade. Or perhaps she had gone to the office and found a system so exquisitely devised that the hiding place

of any chance intelligence was not discernible to the inexperienced.

But whatever the trouble, it would be easily handled. The woman was evidently a city dweller, and for anyone in a city to be deprived of electricity by the application of rules and regulations was absurd.

People who came for inflammation did not bother me. They were glad enough to consign their troubles to the state and go away. What did bother was people from the other end of the social scale—people who could talk fluently and insisted on doing it, usually about nothing.

Aside from the professional lecturer on an oratorical fishing expedition, or the small-college professor with a group of pet students for audience while he paced the carpet and declaimed "Why is it—?" about something that wasn't, except in his lax imagining, the most exasperating visitors were those who settled down for the afternoon with the statement: "It isn't the 72 cents I care about; it's the principle that is involved." The only redeeming feature in such cases was the blank and foolish expression which came when I said I did not care a snap about principle; all I was concerned with was dollars and cents, and if they did not care about money there was nothing to talk about.

Sometimes they asked for my superiors, sometimes they actually waited around in anterooms, but eventually someone probably led them home.

One bland old gentleman verified his meter readings for 12 consecutive months, and then came 100 miles with evidence that the commercial practice of reading meters to the nearest graduation had resulted in his being overcharged a total of six cents. Another, living in the shadow of the State House, used to have his meter tested every month so he could argue about minute

variations in adjustment—always within the limits of accuracy permitted by law. Or at least he did until for some inexplicable reason his meter invariably tested slow!

But the loquacious were not always annoying. Some brought to their narration a vivacity and daintiness of manner that made it no hardship whatever to hear their story through the last ramification of detail. Even a realization that the greatest art was invoked in the most hopeless cases did not mar such occasions. I could not cause a bouncing check to stay in the bank, I could not forgive a debt, but I could send the fair complainant to some company official with assurance that, if her plea were made with sufficient appeal, there was at least a chance of its being granted. And if the official did not appreciate the sending, it indicated an unresponsiveness, a moroseness, not to be encouraged in the management of a public utility.

* * *

There was one class of complainant, though, that I kept strictly to myself—the "poor lone woman."

In the beginning I had no choice. The first one who came my way had no superficial charm and probably would have scorned to appeal to anything but the intelligence if she had. In fact, she came to the State House because she could not find any sign of intelligence in the organization of the Interboro Edison to appeal to.

With her there was no pausing in the doorway to inquire. Some scuffed brown Oxfords traversed the carpet, and as I looked up my visitor sat down, haphazardly, on the nearest chair, reaching for drawing materials.

"Here," she said, introducing herself as she sketched a street map with a vigor that strained both pencil and paper. "I came here for help, and in these days a lone woman in business

needs all the help she can get, believe me!

"There's Broadway, there's Essex Street, there's an alley. There's a pole jointly owned by the Interboro Edison and the Telephone Company, right on the curb. There's the little building I'm putting up with the money I saved keeping books for 22 years: earned it myself, every nickel of it. There, right back of that pole.

"Now then. The Interboro wants \$73 for putting an underground service into my building. All right, I'll pay for underground service if they'll take down that pole in front of the building. No, they can't do that. All right, leave the pole where it is and string overhead wires from the pole to the building at a cost of two or three dollars. No, they can't do that either. Why not? They don't know. Nobody knows. Now what can you do with a bunch like that?

"They know they want me to pay \$73, and that's all they know. I tell you, everyone's out to take advantage of a woman who hasn't got anyone to look out for her! Now what can you do about it?"

It was the usual complication about a pole that belonged jointly to two different companies, served two different purposes, and was located in a district in which the lines were being forced underground by wire inspectors and street commissioners, in the absence of any legislative act, and against the will of the companies. It was a complicated affair in four or five hands, but that did not puzzle me: I had seen such cases before.

What did puzzle me was the complainant's hat. Battered felt hats I had seen before, on both men and women. On men they had been just battered hats, but on women they had been "creations." This one looked as well as a creation, perhaps better, because its dents were more functional than capri-

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cious, but nevertheless when raked down over straying red hair it gave the impression of being really a battered felt hat.

A battered hat on a woman; she said a bookkeeper, but her complexion was made up by sun and wind, her lips faintly crinkled by weather. What kind of creature was this with whom I was dealing?

By her own account she was a lone woman, putting up a little building with nickles saved from long years of bookkeeping: a lone woman contending with the impositions of an unchivalrous world. But her appearance did not quite fit the description. There was the little building, too.

"Well, what about it?"

"I'll go out and look at it tomorrow."

When I stood at the corner of Broadway and Essex I could see how the building could be classed as little. With streets intersecting every few hundred feet no building in the business center of Clyde Park could cover much area. Its height too was evidently limited by building laws.

The lower part was completed, or nearly so. Grillwork was being carried into the bank which was to occupy the first floor. The upper part was still under construction, and thither I made my way.

A carpenter sawing vindictively at a piece of interior finish looked up grimly at my approach.

"Want to find Nellie Donovan, do you? Well, when you find her I hope you'll keep her!"

I found her on the flat roof of the building, hands thrust into reefer pockets, hair whipped by the autumn wind. She didn't look in the least helpless: she loomed like something from a saga beside a caithiff in a black derby—the contractor for the seven-ply, twenty-year, tar-and-gravel roof.

"Here! Look at this. See what this

big bum tried to cover up with a cart-load of gravel!"

* * *

After the experience with Nellie Donovan I decided, in the interest of a complete and rounded education, to give particular attention to complaints of poor lone women. I did, and on the whole could not have asked for better or more agreeable instructors.

They were in a class by themselves, differentiated in some indefinable way from other women. From men they were set apart by finer intelligence and maturity of judgment.

If a man tried to sell his house, and found it unsalable because it was too far from the nearest electric light lines, he made a powerful plea to the state in the name of a family deprived of the convenience of electricity. When his real purpose was discovered, he made wearisome explanations of his change of mind about moving to Florida, and of his longing to be laid at rest, ultimately, amid familiar scenes.

If a woman tried the same trick, she made no explanation when I found a hole in the lawn vacated by a two-by-four post. She merely became watchful. When later I roamed into the cellar and spied the "For Sale" sign stood in a corner for the duration of my visit, the intelligent body knew the game was over.

"Well?"

"Not very promising, I'm afraid."

"There was no harm in trying?"

"None whatever."

And that was all. There were no explanations, and beyond the inevitable disappointment, no hard feelings. If on a subsequent occasion she really needed help, she would feel free to come for it.

How many times I was fooled I had no means of knowing, but there was ground for encouragement in the number of times I was not—a number that reached a fairly creditable ratio as the

years went by. The ratio was not large enough to warrant relaxing in the presence of the poor lone woman, but there was indubitable evidence of progress, and indication that I had at least gone beyond the standard of intelligence set by the Intuitive for the average run of men.

* * *

Years after Nellie Donavan set my feet on the path of knowledge two women came into the office. The first introduced herself as the National Chairman of the Committee on the Regulation of Public Utilities of an aspiring League, and explained that she was making a study of the way commissions operated in their public contacts. When the second woman came in with a big bill from the Metropolitan Edison, the Lady-Chairman retired into a corner with her notebook, delighted to have an opportunity to see "regulation" at work.

The new arrival, Mrs. Gerado Carmanica, was a study in black: nothing else would have been a foil for the lovely brown skin inherited from Sicilian skies. Her big eyes were made very appealing as she told of a thirty-two dollar electric bill for just one floor of an old house in the Italian quarter where she, a young widow with four small children . . . doctor's and nurses' bills . . . Gioia's scarlet fever and Guisseppi's broken arm. . . .

But a telltale watchfulness sharpened the luster of her black eyes when I began to study her hands, her feet, and the hem of a skirt six inches longer than prescribed by the standard of current fashion.

Watchfulness deepened to certainty when I asked for the telephone number of the attending physician, but with a glance at the stranger in the corner she gave it, for form's sake, and went on with her story of taking advice in her extremity and being referred to the State House.

The telephone number of her legal adviser?

That was too much. With a toss of her head she gave the number and prepared to leave, all the vivacity of her smile flashing out as goodbyes were being said.

The National Chairman broke into praise.

"Oh I'm so glad to have had that actual demonstration. I think it's just wonderful, the confidence the public have in you! That poor thing went away absolutely confident her case was safe in your hands."

"Poor thing?" I repeated, incredulous, because I had heard so many times that it takes a woman to judge a woman. "Poor thing? That baggage owns half of Ward Seventeen!"

"Why—Do you know her?"

"Not her; but I know her type. You saw the dress she had on?"

"Yes, I saw it, and I thought she had managed to dress herself very well considering—"

"Well she didn't. That's where she slipped, and she slipped all over. That's what she was laughing at when she went out."

"But I don't understand," protested the Lady-Chairman, all abroad.

"All right, I'll explain. In the first place she should have borrowed a ready-made dress with the short skirt everybody's wearing these days instead of coming out in something that can't be had unless it's made to order. . . . An old dress? That svelte contraption? That dress was made up by Schiaparelli, or Carbone, or some of those five-hundred-dollar pirates. . . . No, there wasn't a sign of wear on it. That kind of woman doesn't have any old dresses: she gives them to servants or poor relations.

"In the second place she should have put some tissue paper with her little

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feet into some 7-D's instead of coming out in those 4 double-A's of Saint Claire's without even toe-wear on the soles. In the third place, when she took off her diamond rings she should have bought some five-and-ten jewelry to cover the band-marks on her fingers.

"Reduced circumstances? Does anyone whose circumstances have been reduced to less than a million have the number of Parker, Gratton, Stuart and Knight on the tip of her tongue? She does not."

"But why did she come here then?" asked the National Chairman, blankly.

"Because there was an extra ten dollars on her electric bill that she thought she could argue herself out of. To the poor lone woman every ten dollars counts. It only takes a hundred thousand to make another million."

"Well, I never dreamed of such a thing!" exclaimed the student of regulation-in-operation, looking ruefully at her scribbled notes.

Never dreamed of such a thing? It was only too evident she hadn't. The dear lady had never dreamed of anything beyond a "soulless corporation" grinding an innocent public—innocent, but subject to all the accidents of human frailty—in the inexorable working of its machine.

She had never realized that the "soulless corporation," in its consumer-relations, is only a free translation of the utilities' glib dictum—"we can't discriminate." She did not know that, as a matter of fact, utilities did discriminate, and discriminate daily, in a way that perhaps few other businesses could, or would. That managers had an endless series of special cases which, regardless of rules, and of course with a careful absence of advertising, were

handled with a tolerance which no state commission could ever incorporate in a formal order. (Although sometimes an informal "recommendation" protects a fearful management from a charge of discrimination in some irregularity it is quite disposed to commit.)

And as for her innocent public, it probably had never occurred to her that the public might be careless or shiftless beyond all patience; that it contained schemers and those who stole; that there were some even who made a business of teaching others to steal from the utilities which they regarded as common prey.

She had never dreamed of such a thing as had just happened before her eyes. For a moment I was tempted to comment derisively on this ignorance of the *comédie humaine*, but a glance back through the years reduced me to silence.

"Me bill is too big!" . . . It had been a long time since Mrs. Finnegan demonstrated that, although a utility's lines might be rooted in science, the business end towered far above ordered ways. Many feet had crossed my green carpet since Nellie Donavan's brought me the first "lone woman."

Some had come hopefully, in a faith that there must be, somewhere, some recourse. Some had come convinced that their cause was hopeless, as a last formal gesture of despair.

Many had gone away grateful; most of them with appreciation: evidently, for those who came for questionable purposes did not return—at least on the same errand. And each had brought his contribution to the unusual perspective I now possessed.

The worn path on the office carpet made me quite tolerant with the Lady Chairman.

Relocation of Non-Conforming Land Users of the Zoned Counties in Wisconsin

By GEORGE S. WEHRWEIN and J. A. BAKER*

NO ONE ought to be allowed to farm in such ways that he costs the community more than he contributes," says Secretary Rexford Guy Tugwell in the July issue of *Current History*.¹ After suggesting numerous readjustments a farmer of this kind ought to make, Mr. Tugwell continues: "The straws in the wind which show that he will have to conform in some such respects as these are such state zoning acts as Wisconsin has, and such drastic protections as the Texas Wind Erosion Act. These are essentially neighborhood laws for mutual protection. The Federal Government with its Soil Conservation Service and Resettlement Administration merely follow along and attempt to help."

The Wisconsin land program has followed the steps outlined above. The state enabling act² has granted to counties the power to use "essentially neighborhood laws for mutual protection" against the excessive costs for schools, roads, and other public services caused by isolated settlement and has protected the future settler against locating on submarginal land. Especially in the recreational districts has the zoning power been used to regulate the use of land in the interests of public welfare. The 23 counties which have zoned their lands for agriculture, forestry, and recreation are ready for the next step—namely, the relocation of the non-conforming land users, i. e.,

those families who had established their residence in the present zoned districts before the zoning ordinances became effective. Many counties on their own initiative and with their own funds have already made some real progress in this work. Almost 2,000 such settlers are permitted to remain in the restricted districts under the provisions of the state enabling act and the county ordinances. However, as long as they remain they perpetuate the excessive costs for education and highways. Since the Resettlement Administration has been set up for the purpose of relocating settlers who are stranded and living on submarginal land, it has the opportunity to "follow along and attempt to help" by completing the land program begun under the zoning ordinances.

Zoning Accomplishments since 1933

A review of the results accomplished to date shows a total of 23 northern and north central Wisconsin counties with zoning ordinances, and several more are taking steps to zone their lands. The first county to zone was Oneida in 1933.³ The later ordinances have improved and modified the Oneida ordinance. Vilas, the second county to zone, made provisions for recording the names and descriptions of the property of non-conforming land users and other counties followed suit. The 1935 Legislature made this mandatory and now all counties have made such lists.⁴

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¹ "Down to Earth", *Current History*, July, 1936, pp. 33-8 at 34.

² Wis. Stats., § 59.97.

³ W. A. Rowlands, "County Zoning for Agriculture, Forestry and Recreation", 9 *Journal of Land & Public Utility Economics* 272-282 (August, 1933).

⁴ J. M. Albers, "Recent Amendments to the Wisconsin County Zoning Act", 11 *Ibid.* 411 (November, 1935).

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⁵ Iowa
1935, pp

Oneida County set up only two districts, a "forestry-recreation" zone and an "unrestricted" district. Vilas, with its many lakes and highly developed recreational lands, provided a third, a purely "recreational" district in which forestry and year-long residence are permitted but agriculture is prohibited. Family residences were allowed because many resort owners have caretakers who live in the summer homes all the year long. Agriculture is excluded because of the fire danger whenever settlers are clearing land, and because cattle are often permitted to roam abroad. It is also desirable to prevent the clearing of land along the lakes in order to preserve the virgin beauty of the shores. Probably some regulation of tree cutting will be made in the future in the recreational zones for the same reasons.

By excluding agriculture from the lake regions by use of either forestry or recreational districts these counties have builded better than they knew. The repercussion of agricultural land uses on lakes can be observed in Iowa. Some of the lakes in this State have dried up completely and others which still have shallow waters are infested with silt, decaying vegetable matter, algae growth, and pollution. Eighteen lakes were surveyed and the average depth of silt over the entire bottom was found to be more than 10 feet, and in some cases as much as 30 feet. Practically all the lakes are in need of dredging to restore and maintain them in their former state.⁵

However, unless the problem is attacked at its source, dredging and removing vegetation and algae, etc., will be a continuous job. These lakes are for the most part surrounded by farm land. The run-off from cultivated land carries silt into streams and lakes which

act as natural settling basins. Planting the shores with trees and shrubs is recommended to control erosion and to beautify the landscape, but how much of this can be expected of farmers who own the valuable farm land? The *Report on the Iowa Conservation Plan* has suggested specific improvements on 38 lakes. Over 20 of these lakes have become silted and practically all of them have become polluted by the fouling of the waters by cattle and hogs and by the wash from barn yards. In other cases there is pollution from city sewage, and in only a few cases is there enough publicly owned riparian land to permit the public to make full use of the lakes.⁶

The lakes and streams of southern Wisconsin, also surrounded by farm land, are subject to the same influences as the Iowa lakes. The smaller lakes may suffer the same fate, but the larger ones can be protected by setting up recreational districts under the county zoning acts with provisions designed to protect their beauty, prevent silting, and control undesirable land uses. Additional powers were granted to Wisconsin counties by the 1935 Legislature under which they may regulate, restrict, and determine the uses of land along water courses.⁷ Wherever the shores are platted, control over congestion, pollution, health, and sanitation can be exercised by the State Board of Health.

Recreational districts have been established in 9 counties, but their areas are small, covering only 2.8% of the total area of the 22 counties for which data were available in June, 1936, as compared with 31.9% embraced in the forestry districts (Table I). Vilas County, however, has placed 30% of its entire

⁵ *The Report on the Iowa Twenty-Five Year Conservation Plan*, 1933, pp. 55-68.

⁷ Laws 1933, c's 303 and 304.

⁶ Iowa State Planning Board, *Second Report*, April, 1935, pp. 59-64.

area in recreational districts and 53% in forest zones, leaving only 17% in the unrestricted district open to agriculture. As Table I shows, of 13 million acres in the 22 counties, 4,668,760 acres (or 34.7%) were restricted and closed to agriculture, leaving 65% in the unrestricted areas.

TABLE I. AREAS OF RESTRICTED AND UNRESTRICTED DISTRICTS, LAND IN FARMS, AND IN NON-CONFORMING USES IN 22 ZONED COUNTIES OF WISCONSIN, JUNE, 1936*

	Acres	Percent of Total Area of Counties
Restricted Districts.....	4,668,760	34.7%
Forestry districts.....	4,291,285	31.9
Recreation districts.....	377,475	2.8
Non-conforming uses*..	168,394	1.3
Unrestricted Districts.....	8,751,252	65.3
Now in farms†.....	5,199,296	38.7
Open for settlement....	3,551,956	26.6
(not in farms)		
Total Area of Counties‡..	13,420,012	100.0

*Count taken from official zoning maps and from official list of non-conforming uses (See footnote 8).

†Land in farms as reported by the 1935 Census minus the area of non-conforming uses, representing farm land in restricted districts.

‡As compiled by the Wisconsin Department of Agriculture and Markets.

According to the *Census* of 1935 only 39.9% of the area of these counties was in farms, of which 168,394 acres, or 1.3%, consist of non-conforming uses in the restricted districts, and 5,199,296 acres (38.7%) consist of land in farms in the unrestricted districts. Even with $\frac{1}{3}$ of these counties closed to agriculture, 26.6% of their total area is still open to settlement. In other words, zoning has

*The official records of non-conforming land users on file in the county seats include the name of the occupant, the legal description of the land he occupies, the number and condition of the buildings, the amount of land cultivated, cleared and used for pasture. A supplementary record gave certain educational and highway costs.

In 1934 a Forest-Farm Homesteads project was proposed for northern Wisconsin, but it never got beyond the preliminary stages because of changes in the method of administration of the Subsistence Homesteads Division of the Department of the Interior. As part of the plan of selecting settlers for this project, a C.W.A. study was made of almost 3,000 isolated settlers in the

not closed the door to agricultural development of these counties, but has directed the future settler to the better farm lands close to neighbors, schools, and markets.

The official lists of non-conforming users in the 22 counties indicate 1,898 settlers in this class. Their farms embrace 168,394 acres, or a little more than 3% of the restricted area, which means that 96% of this vast territory is not in farms. This in itself is some indication of their isolation. In terms of density of population, less than 2,000 families are living on 5 million acres of land, which means a population density of 1.04 persons per square mile. In spite of this sparsity, these non-conforming land users must be served with roads, schools, and other public services just as efficiently as the families living in closely settled unrestricted or agricultural areas.

By studying the information found on the official lists of non-conforming users and the data on 615 schedules obtained in a previous survey, it is possible to picture some of the problems of isolation.⁸

The Highway Costs of Isolated Settlements

The information derived from the 615 schedules gives graphic evidence of the public costs resulting from isolation. The schedules showed the taxes paid by the non-conforming settlers, the accumulated tax delinquency on the property they occupied, relief, school, and

north, the results of which will soon be published by the University of Wisconsin. When the official lists of non-conforming users were available, it was found that 615 of them had been visited by the enumerators during the previous investigation. A special study was made of this group.

The authors wish to express their appreciation to W. A. Rowlands and F. B. Trenk, who with the junior author supervised the W.P.A. project which made possible the tabulation and statistical analysis of the data from the official lists of non-conforming land users and from the 615 C.W.A. schedules obtained as part of the study of isolated settlers.

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road costs. Table II shows a few representative samples and the summary for the entire 615 settlers. Settler No. 2, for instance, had a tax levy of \$5.76 on his farm in 1933, but owed \$6.56 in accumulated taxes. He was on relief, which had cost the government almost \$45 in 1933, and besides the community had spent \$500 to provide a road to his farm.

The summary for all the settlers indicates an average tax bill of \$25.94 for 1933, but the average total outstanding delinquent taxes amounted to \$22.03. The "net" contribution for support of the government was, therefore, small. On the other hand, an average of \$34.44 had been spent on relief, and the educational costs amounted to \$11.00 per family. To provide these isolated settlers with roads had cost the community over \$89 per farm, and this covers only the first expense of building the highway; it does not include the annual costs for maintenance, snow removal, and other recurring expenses. Until a few years ago it was considered mandatory upon the town to build a road for the settler whenever he called for one. This is no longer true, but while the law was so interpreted it was responsible for some of the isolated settlement and excess road mileage.

Curiously enough, the job of providing roads for non-conforming settlers has not even been completed. At the time these families were visited in 1934 there were 63 for whom no road to the farm had yet been furnished. The total cost of building the roads for the 63 families was estimated at \$55,000, or an average of \$873 per farm. Since the assessed value of the average non-conforming farm was \$745, the cost of the roads would actually exceed the taxable value of the farms. Langlade County, for example, would have to spend a total of \$3,650, Oneida \$7,300, and Forest \$600 if the roadless settlers were to be provided with a highway. Since these figures cover only those families visited in the C.W.A. survey, or about $\frac{1}{3}$ of the number of non-conforming users, these estimates are an understatement of the costs which such an undertaking would involve. Now that these counties have zoned there is little enthusiasm to spend money for this purpose; in fact, one community flatly refused to build five miles of road for two non-conforming settlers on the plea that the area was zoned and the town could not afford to build the road for two families. Instead of building the road, the town helped to move them into the unrestricted district of the county.

TABLE II. SPECIAL COSTS ATTRIBUTABLE TO INDIVIDUAL FAMILIES IN NORTHERN WISCONSIN, 1933*

Settler (No.)	Tax Levy, 1933	Accumulated Delinquent Taxes, 1933	Annual Relief Received	Annual Cost of School Transporta- tion or Tui- tion	First Cost of Building Road to Settler
2.....	\$ 5.76	\$ 6.56	\$44.88	.....	\$ 500.00
5.....	52.75	209.27	.....	\$ 90.00	3,500.00
16.....	13.19	.....	15.00	280.00	5,000.00
21.....	2.48	.....	123.91	.....	1,200.00
23.....	8.40	9.39	.....	90.00	1,200.00
30.....	14.47	.....	236.28	108.00	2,200.00
615 Settlers (Average).....	\$25.94	\$22.03	\$34.44	\$11.00	\$ 89.03

* See footnote 8.

Relocation of non-conforming users would permit the closing of many miles of road and save the state the \$50-a-mile state aid now granted to the town in addition to local costs. However, not every relocation would result in closing roads. Where a road has to be maintained for resort owners and caretakers, nothing could be saved in highway costs if the farmers living along the same road were relocated. The resettlement of non-conforming farmers living on a "through road" would not affect the road finances since it is not maintained for local travel. On the other hand, the removal of 13 families living on 30 miles of town road in western Oneida County would permit this road to be abandoned and save \$1,500 in state aids annually.

School Costs in Isolated Settlements

Low population density means a small number of school children per unit of area. Since there were 102 unmarried men and 379 families with no children of school age among the 615 non-conforming settlers, the sparsity of families with children is much greater than a population density of 1.04 persons per square mile implies.

One way of providing accessible educational facilities is to have a school within walking distance of every child. This, however, means small enrollments per school, relatively inefficient teaching, yet high costs per pupil. The state law sets a minimum wage for teachers and a minimum length of school term. Costs of fuel, repairs, and supplies are practically the same whether the attendance is large or small. Thus the costs per pupil are in inverse ratio to the enrollment. A study of the cost of education based upon all rural schools of Wisconsin shows that it costs four times as much to educate a child in a school with five pupils or less than in a

school where 30 to 35 pupils attend. Many individual cases of costs ranging from \$200 to \$400 per child per year come to light in the surveys made in northern Wisconsin counties. Small schools, however, are not confined to the north; some of the central counties and even some of the better agricultural sections have a larger proportion of small schools than the northern counties. This is because families have become smaller and farms larger in the older parts of the State, whereas the size of the school districts has not changed very much since they were laid out.

Consolidation has been suggested, but this merely increases the distance between the school and the home and would be impossible unless transportation is provided. If transportation is not feasible, parents are permitted to board their children with some family near the school at public expense. Under the Wisconsin law transportation must be furnished whenever a child lives more than $2\frac{1}{2}$ miles from a school. As Table III shows, the average distance to the nearest school as reported by the 615 non-conforming land users is almost four miles. This implies that the majority of the children are being transported now. The average cost in terms of all 615 settlers is \$11.00 per family and, as Table II shows, may run as high as \$280 per family per year for individual cases.

How much could be saved if the non-conforming families were relocated depends upon circumstances. In some cases there are no schools in the restricted districts, all children being transported to schools located in the unrestricted district. In such cases transportation costs would be saved but no schools would be closed if resettlement took place. In other cases there are schools within the restricted dis-

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tracts. The relocation of some of the farmers tends to increase isolation, increase costs per pupil, yet the school could not be closed or transportation costs avoided until resettlement had become complete.

Zoning and Isolation

Although the saving in governmental costs through reduction of isolation appears uppermost in any relocation program, the personal inconveniences are also important. The disadvantages of sparse settlement lie in the remoteness of the settlers from markets, community institutions, and neighbors. There is difficulty in getting products to market and in obtaining household supplies, going to the polls on election day, and attending church. The remoteness is not only in miles, as shown in Table III, but also in the poorer roads and more difficult transportation of the isolated areas.

The public and private costs of isolation, the lack of tax-paying ability, relief costs, and other factors discussed above are common to all sparsely settled areas whether zoned or not. Some of them cannot even be attributed to isolation. People are on relief or have failed to pay their taxes even in densely settled areas. The point is that the

non-conforming, isolated settler merits special attention as compared to the isolated settler who does not live in a restricted district. Zoning prevents new families from becoming neighbors of those now living in the restricted districts. Scattered settlements cannot hope to become communities which might support a church or a school. This is not the fault of zoning *per se* which merely recognizes officially that the land is submarginal or that settling scattered tracts of fair soil would only create more isolation and more costs for public services.

The first effect of zoning is to "freeze" the existing population pattern in the restricted areas in so far as it prohibits future settlement. However, the pattern will not remain static. Some of the non-conforming users are squatters or renters who can move without sacrificing any investment in land. These are the most mobile of all. Others may trade their farms for county land in an unrestricted district. Some have been relocated by towns and counties, and others have sold their holdings to the Resettlement Administration. Some of the non-conforming uses will be discontinued as time goes on and, according to the ordinances, cannot be reestablished. As a result of all such movements

TABLE III. SEVERITY OF ISOLATION AS SHOWN BY DISTANCE OF SETTLER FROM THE NEAREST NEIGHBOR AND SEVERAL COMMUNITY FEATURES IN FIVE SELECTED COUNTIES AND THE AVERAGE FOR 22 COUNTIES, 1933*

County	Distance (in miles) from					
	Nearest Neighbor	Nearest High School	Nearest Grade School	Nearest Doctor	Nearest Church	Nearest Available Market
Forest.....	0.9	8.9	3.7	14.8	7.2	12.4
Langlade.....	0.7	14.2	2.7	13.2	14.7	12.9
Lincoln.....	0.7	11.6	4.8	12.3	6.9	12.0
Oneida.....	0.8	10.7	4.9	13.8	10.0	10.2
Vilas.....	0.6	12.9	5.2	11.3	8.6	11.2
Average—22 Counties.....	0.9	11.5	3.9	13.8	7.5	11.9

*Based on study of 615 non-conforming land users (See footnote 8).

of settlers the density of population will become less and isolation greater. For instance, an average distance of 9/10 of a mile to the nearest neighbor does not seem far. However, settlers often live in groups or pairs. Two families may live within $\frac{1}{2}$ mile of each other, yet both may be 12 miles from the nearest market, high school, or doctor. If one of them leaves, the next nearest home may be five or six miles from the one who remains. Whatever the cause, the removal of part of the settlers will tend to increase scattered settlement, at least temporarily.

A third reason for relocation of non-conforming farmers is the fact that they have all the inconveniences of isolation and none of the benefits which are often associated with urban, non-conforming uses. A store located in a residential district before the area was zoned and which is permitted to remain after all other business is excluded enjoys a certain monopoly. Zoning has excluded future competitors. Farming as a rule enjoys no such advantage of location, although certain individuals catering to tourists, hotels, and resorts may profit by being non-conforming users in a recreational or forestry district. In so far as a non-conforming user has been subjected to inconveniences or additional costs by a public action designed to promote the general welfare, the expenditure of tax money to relocate that settler has added justification even though use of the police power does not call for compensation for private losses.

But there is a final reason for the removal of non-conforming users from restricted districts. It is highly important that all uses not in harmony with the permitted uses be abated as quickly as possible and that the land be placed in uses consistent with the ordinance. This is important from the

standpoint of zoning itself and of the non-conforming land user as well. As a matter of fact, zoning for agriculture, forestry, and recreation calls for a new technique in defining, recording, and abating or discontinuing non-conforming uses.

Planned Relocation of Non-Conforming Land Users

While complete relocation of all non-conforming land users is theoretically the goal, practically this is not desirable at the present time. A cursory survey of the 1,898 settlers now officially recorded as non-conforming land users indicates that there are farmers on good soil living near "conforming" resort owners and caretakers. There are enough families to constitute a fair sized community. Schools and roads would have to be maintained even if all farmers were relocated but at a higher per-capita cost for the smaller number of families that remain. It could be argued that such an area should not be restricted at all, yet local conditions might well justify restriction of additional farming. Some settlers live on "through" roads, or near the edges of the districts, and thus do not cause additional public costs. Since relocation means purchase of the settler's present holding and may include establishing him on another farm, the cost of resettlement must be balanced against annual public savings and other reasons for abating the non-conforming uses. As the zoned areas now stand, it seems desirable to change some forestry to recreation districts and some restricted to unrestricted districts rather than proceed with wholesale relocation in these areas.

All this suggests that resettlement should not be indiscriminate but should be carried out after careful study of each case and according to some plan

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based upon welfare of the community and needs of the settler. Such procedure was suggested by the Land Use Advisory Committee of the Wisconsin State Planning Board (August 17, 1935). In order to make the land-retirement program of immediate and lasting financial benefit to local units of government as well as to the individuals concerned, the following priority is suggested in the purchase of individual sub-marginal farms:

1. Settlers representing the most aggravated cases of high governmental expense for roads, schools, relief, and public health services, and whose relocation would eliminate partially or wholly such excessive governmental costs and be in the interest of the public welfare.

2. Settlers who are so located as to be a constant fire hazard to areas of merchantable timber on which local governmental units depend for revenue, local industry for raw materials, and local people for employment.

3. Settlers located on land of low agricultural value, on land too hilly, stony, swampy, or sandy to maintain a farm family under any type of agricultural use.

4. Settlers who because of physical or mental conditions will in all probability never "make a go" of it and who ultimately will be "on the town" for assistance. In such cases resettlement will prevent an unnecessary waste of both human and financial resources.

5. Settlers too far removed from a market town, such as those left stranded by removal of a railroad which had provided a market outlet for bulky products like potatoes.

6. Settlers who have permanently lost or are about to lose all outside sources

of additional income upon which they were formerly entirely dependent and who, therefore, must look to a new location for a new future.

7. Settlers who in the near future will cause an excessive burden for roads, bridges, or schools, such as families located many miles from an established school with one or more children who will be of school age in a short time.

Relocation of stranded settlers on submarginal land is a worthy enterprise whether the area is zoned or not zoned. However, it is of more importance and lasting benefit where zoning has preceded resettlement. In Wisconsin the purchase of less than 200,000 acres of land now owned by non-conforming users would remove all agriculture from almost 5,000,000 acres of land. Zoning will insure these restricted districts against a repetition of the mistakes of the past. If, in addition, relocation is carried out in some systematic way as suggested above, it will result in immediate reduction of public costs with the least hardship to the settlers themselves. However, every relocation must be voluntary; no settler will be coerced into selling his farm. This means that even the best plans and intentions may be only a guide instead of a fixed program of purchase. If the settler representing "the most extravagant case of governmental expense" refuses to sell but others who have merely lost their market are willing to be relocated, the first to be resettled will be sixth in order of priority as set up by the Land Use Advisory Committee. All this points to a long-time program administered with tact and an understanding of the psychology of the people living in "pioneer fringes."

Some Comments on Public Utility Refunding Operations

By LAWRENCE G. DAHL*

IT WAS not until about the middle of 1931 that the market for public utility bonds was adversely affected by the depression. In fact, the first half of 1931 was a period of favorable interest rates marked by a considerable volume of public utility financing which included approximately \$450,000,000 of long-term bonds issued for refunding purposes. Commencing in July, 1931, bond prices began to fall and during the ensuing three-year period there were times, particularly during the early summer of 1932 and the closing months of 1933, when the public utility bond market was so demoralized that the prices of many sound operating company issues sank to levels which appear almost incredible by comparison with the prices which prevail today. For example, the first mortgage 4% bonds of the Commonwealth Edison Company, \$85,000,000 of which were offered to the public at 94½ in June, 1931, to yield the investor 4.25%, sold as low as 69 ⅞ in 1932 and 69 ½ in December, 1933, compared with a closing price of 107 on June 30, 1936; the general and refunding 4½% bonds of the Detroit Edison Company which were offered to the public at 103½ in June, 1931, to yield 4.28%, dropped to a low of 75 in 1933 compared with a closing price of 115¾ on June 30, 1936; and the first lien and refunding 4½% bonds of Public Service Company of Northern Illinois, \$40,000,-

000 of which were offered to the public at 97½ in June, 1931, sold as low as 52½ in December, 1933, compared with the June 30, 1936 closing price of 103 ⅞.

Following the December, 1933 lows an appreciable improvement in prices manifested itself in 1934 but as late as November of that year the refinancing of maturing debt issues at reasonable cost was a matter of serious concern to the managements of such utilities as were unfortunate enough to be confronted with that problem. Aside from the fact that the market was unreceptive to new flotations, the severe burdens and liabilities imposed on issuer and underwriter alike by the original federal security act effectively precluded all but emergency refunding of 1934 maturities.

However, by March, 1935 some of the most burdensome and objectionable provisions of the original federal security legislation had been eliminated or considerably modified and the Securities and Exchange Commission had undertaken a simplification of registration requirements. As the result of these changes, coupled with a substantial improvement in market conditions, some of the stronger operating companies initiated bond refunding operations. Notable among the initial refunding issues were the \$45,000,000 issue of 4% first and refunding mortgage bonds put out by the Pacific Gas and Electric Company in March, 1935, offered to investors at par to yield 4%, and the \$73,000,000 issue of 3¾% refunding mortgage bonds of the Southern Cali-

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This article is submitted by the author in his individual capacity and not as a representative of the company by which he is employed.

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California Edison Company, offered in April, 1935 at a price of 98½ to yield the investor 3.85%. By June, 1935, the market had further improved to the point where a second Pacific Gas and Electric Company issue of the same series which had been offered to the public at par in March was marketed at 104 to yield 3.77%, subject to an underwriting commission of only two points as compared with three points on the preceding issue.

Spurred by further improvement in market conditions the refunding movement reached sizable proportions by July, 1935, and has continued practically without interruption during 1936. The magnitude of this financing and the extent to which the proceeds therefrom have been utilized for refunding as distinguished from new capital purposes are indicated by the summary of long-term public utility bond offerings in Table I.

Barring unpredictable changes in interest rates and market conditions, present prospects are that the volume of refunding issues for the full year 1936 will be materially in excess of the imposing total for 1935.

The primary purpose of this bond refunding program, of course, has been to effect the maximum possible saving in interest charges which constitute an important part of the cost of supplying utility service, thereby offsetting at least in part the formidable inroads made upon utility net income by such factors as rate reductions, increasing

labor and material costs, and rapidly mounting tax burdens. Another highly desirable objective has been the simplification of financial and corporate structures through replacement of a large number of separate bond issues of varying maturities, coupon rates, and degrees of priority by a single open-end first mortgage issue and the dissolution wherever possible of subsidiary companies.

In view of the importance of the refunding movement as indicated by the foregoing discussion of its development during the past two years it seems appropriate to comment briefly on some of the accounting questions involved in the recording of refunding operations and their proper treatment from the standpoint of sound and generally accepted principles of public utility accounting.

Contrary to the opinion of the average layman, the feasibility of and the annual savings effected by refunding public utility bonds prior to their maturity are dependent upon a number of important factors in addition to the relative coupon rates of the old and new issues. The determination of comparative actual costs of money under the refunded and refunding issues involves a consideration of the discount and expense properly remaining unamortized on the old issues as of the date of their refunding, the call premiums and other redemption expenses incurred in connection with the retirement of these issues, the amount of interest which

TABLE I. SUMMARY OF LONG-TERM PUBLIC UTILITY BOND ISSUES, 1933-1936*

Period	New Capital	Refunding	Total
Year 1933.....	\$ 10,721,000	\$ 32,518,000	\$ 43,239,000
Year 1934.....	26,359,500	56,585,500	82,945,000
Year 1935.....	81,765,632	1,147,155,768	1,228,921,400
First 6 Months 1936.....	58,934,206	956,890,294	1,015,824,500

*Compiled by the *Commercial and Financial Chronicle*.

must be paid during the interim between refunding and call dates on such of the old securities as are not redeemable until after the refunding date, the term and coupon rate of the refunding issue, the net proceeds received from the underwriters of the refunding issue, and the total expenses incurred by the issuing company in connection with flotation of the refunding issue.

By way of illustration let us take a simple hypothetical case. Let us assume that a utility company has outstanding \$20,000,000 of 20-year 5% bonds all of which were issued on June 1, 1924. These bonds were offered to the investing public by the underwriters of the issue at a price of 95 to yield approximately 5.41% to maturity on the conventional bond-table basis. The company's net proceeds from this \$20,000,000 issue after deduction of a five-point underwriting commission and \$98,000 of expenses for legal services, authorization fees, engraving, printing, etc., were \$17,902,000 or 89.51% of par so that as compared with a yield of 5.41% to the investor on a bond-table basis the corresponding cost to the company on the same basis was 5.90%. At the maturity of the bonds on June 1, 1944 the company will be obligated to redeem them at their par value of \$20,000,000 as compared with only \$17,902,000 of realized net proceeds so that provision must be made through charges against earnings during the 20-year life of the issue for amortization of \$2,098,000 of bond discount and expense.

Had the company elected to amortize this discount and expense on the so-called scientific basis employed by standard bond tables the first half year's amortization requirements would have been \$28,140.34, this being the annuity which with interest compounded semi-annually at the indicated effective in-

terest rate of 5.90% would amount to \$2,098,000 at the end of 40 half-year annuity periods. On this basis the required amortization during the second half-year would have been \$28,970.48, during the third half-year \$29,825.11, during the fourth half year \$30,704.95, and so on, increasing each half year until the last half year of the 20-year period when the amortization requirements would amount to \$87,449.44. Throughout the entire 20-year period the semi-annual interest requirements of \$500,000 plus semi-annual provision for amortization would be equivalent to exactly 2.95% of the sum of original net proceeds from the bond issue and accumulated provision for amortization of discount and expense at the beginning of the semi-annual period for which such computation is made. In other words, using the bond-table basis of amortization the effective interest rate and cost of bond money to the company under this issue would remain at exactly 5.90% during the entire life of the issue.

Let us assume, however, that by reason of its relative simplicity the company actually chose to amortize the \$2,098,000 of bond discount and expense on a straight-line basis; that is, on the basis of equal annual provision of \$104,900 per year over the 20-year life of the bonds. Unlike interest charges which represent periodic cash outgo, the funds represented by provision for amortization are retained in the business and not actually paid out until retirement of a bond issue, so that at the beginning of each year the company's utilizable net proceeds from the issue would be equivalent to the original net proceeds plus accumulated provision for amortization. Hence, in the case of our hypothetical company, although combined annual interest and straight-line amortization requirements remained constant at \$1,-

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104,900, consisting of \$1,000,000 interest and \$104,900 provision for amortization, the utilizable net proceeds increased each year with a corresponding indicated decrease in percentage cost of bond money as shown in Table II.

Thus it will be observed that, by contrast with the bond-table basis of amortization of discount and expense which indicates a uniform percentage cost of 5.90% throughout the life of this particular bond issue, the use of the straight-line basis of amortization results in uniform annual cost in terms of total dollar requirements but a gradually decreasing percentage cost ranging from 6.17% the first year to 5.55% the twentieth year. It will also be noted that at about the mid-point of maturity the percentage cost, using the straight-line method, approximates the corresponding cost on a bond-table basis.

Continuing with our hypothetical

case, let us assume that early in 1936 the company decided to refund its \$20,000,000 of outstanding 5% bonds which do not mature until June 1, 1944, and accordingly made the necessary arrangements for their redemption on June 1, 1936 at their then call price of 105. The company's cash position and construction program were such that all of the \$21,000,000 cash redemption requirements, together with expenses incident to the flotation of a refunding issue, had to be obtained from proceeds of the refunding issue. Bond market conditions at the end of May were sufficiently favorable to enable the underwriters to market a \$21,400,000 issue of the company's 25-year 4% first mortgage bonds at a price of 101½ to yield the investor approximately 3.90% to maturity. Based on the price of 99 received from the underwriters, the company realized proceeds of \$21,186,000, which amount was exactly equal to

TABLE II. ILLUSTRATION OF DECREASING PERCENTAGE COST OF BOND MONEY WITH STRAIGHT-LINE AMORTIZATION OF BOND DISCOUNT AND EXPENSE

Year	Unamortized Discount and Expense at Beginning of Year	Original Net Proceeds of \$17,902,000 Plus Accumulated Amortization at Beginning of Year	Combined Annual Interest and Amortization Requirements of \$1,104,900 as 1 Percent of Utilizable Proceeds
1	\$ 2,098,000	\$17,902,000	6.172%
2	1,993,100	18,006,900	6.136
3	1,888,200	18,111,800	6.100
4	1,783,300	18,216,700	6.065
5	1,678,400	18,321,600	6.030
6	1,573,500	18,426,500	5.996
7	1,468,600	18,531,400	5.962
8	1,363,700	18,636,300	5.929
9	1,258,800	18,741,200	5.896
10	1,153,900	18,846,100	5.863
11	1,049,000	18,951,000	5.830
12	944,100	19,055,900	5.798
13	839,200	19,160,800	5.766
14	734,300	19,265,700	5.735
15	629,400	19,370,600	5.704
16	524,500	19,475,500	5.673
17	419,600	19,580,400	5.643
18	314,700	19,685,300	5.613
19	209,800	19,790,200	5.583
20	104,900	19,895,100	5.554

the \$21,000,000 of cash required for the redemption of the old \$20,000,000 issue plus expenses of \$186,000 incurred by the company in connection with registration and flotation of the refunding issue.

Now that the refunding operation has been consummated let us give consideration to the annual savings in fixed charges resulting therefrom and to the accounting treatment which should be accorded the various elements involved in the transaction. In the first place, the company's cash position is exactly the same as it was before the refunding, notwithstanding the fact that its total funded debt as shown on the liability side of its balance sheet has increased from \$20,000,000 to \$21,400,000. However, annual interest charges on the refunding issue exclusive of any provision for amortization of discount and expense amount to only \$856,000 compared with corresponding requirements of \$1,000,000 on the retired issue, with a resulting annual saving of \$144,000 in this item.

In the determination of relative annual amortization requirements under the old and new issues consideration must be given to the following factors:

One-point discount on refunding issue.....	\$ 214,000
Expense on refunding issue.....	186,000
Five-point redemption premium on refunded issue.....	1,000,000
Unamortized portion of discount and expense on refunded issue as of the refunding date.....	839,200
Total discount and expense assignable to and amortizable over the life of the refunding issue.....	\$2,239,200

Since the term of the new issue is 25 years, the required annual provision for amortization on a straight-line basis of total discount and expense assignable thereto would be $1/25$ of \$2,239,200, or \$89,568. On this basis total annual re-

quirements for interest and amortization under the old and new issues are compared in Table III.

As of the refunding date, June 1, 1936, the net cash proceeds actually realized by the company from the old bond issue amounted to \$19,160,800, made up of the original net proceeds of \$17,902,000 realized on the sale of this issue in 1924 plus 12 years' accumulated provision for amortization amounting to \$1,258,800. Since no additional cash was realized from the refunding issue it follows that, as of June 1, 1936, the true net proceeds assignable to this issue were likewise \$19,160,800. For the year beginning June 1, 1936, the relative percentage cost of money under the old and new bond issues with straight-line amortization of discount and expense would be:

	Old Issue	Refunding Issue
Available net proceeds as of June 1, 1936.....	\$19,160,800	\$19,160,800
Annual interest and amortization requirements on straight-line basis.....	1,104,900	945,568
Percentage cost.....	5.766%	4.935%

Turning now to a consideration of relative percentage costs of the old and new issues on a bond-table basis as distinguished from the above figures predicated on straight-line amortization, we find that, had the \$2,098,000 of discount and expense incurred in connection with the original flotation of the old issue been amortized on a bond-table basis, the accumulated provision as of June 1, 1936 would have been \$962,726.68, leaving an unamortized balance of \$1,135,273.32, or an amount \$296,073.32 in excess of the unamortized balance under the straight-line basis actually used. It is therefore evident that the latter method was more con-

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TABLE III. SUMMARY OF SAVINGS IN ANNUAL INTEREST AND STRAIGHT-LINE AMORTIZATION REQUIREMENTS EFFECTED BY A HYPOTHETICAL REFUNDING OPERATION

	Interest Requirements	Amortization Requirements	Combined Interest and Amortization
Old issue	\$ 1,000,000	\$ 104,900	\$ 1,104,900
Refunding issue	856,000	89,568	945,568
Annual Saving	144,000	15,332	159,332

servative in that its use meant carrying forward a lesser amount of discount and expense to the cost of the refunding issue.

Predicated on the \$839,200 of discount and expense on the old bonds actually remaining unamortized as of June 1, 1936, available net proceeds as of the same date were \$19,160,800, equivalent to 95.80% of their par value of \$20,000,000. Had these bonds not been refunded, we find that the effective interest rate during the eight years remaining to maturity would have been 5.66% on a bond-table basis.

As shown in Table IV the cash proceeds realized by the company from the sale of the 25-year 4% refunding issue amounted to \$21,000,000 but the true

net proceeds as of June 1, 1936 were only \$19,160,800 with a corresponding percentage cost of 4.72%.

Thus it will be observed that, although the refunding issue was offered to investors to yield 3.90% to maturity on the conventional bond-table basis, the corresponding true over-all cost of money to the company under this issue was 4.72%. Any doubt which might exist as to the propriety of treating call premiums and unexpired discount and expense on the refunded issue as a part of the total discount and expense chargeable against the refunding issue will be dispelled when consideration is given to the fact that the company has not realized a single dollar of new cash from the refunding operation. The net

TABLE IV. ILLUSTRATION OF RELATION BETWEEN YIELD TO INVESTOR AND PERCENTAGE COST TO COMPANY UNDER A REFUNDING BOND ISSUE

	Amount	Percent of Par	Effective Rate to Maturity on Bond-Table Basis
Par amount of refunding issue	\$21,400,000	100.00%	
Offering price to investors	21,721,000	101.50	3.90%
Underwriting commission	535,000	2.50	
Received from underwriters	21,186,000	99.00	4.06
Expenses on refunding issue	186,000	.87	
Cash proceeds after expenses	21,000,000	98.13	4.12
Call premium on refunded issue	1,000,000	4.67	
Balance of proceeds before deduction of unamortized discount and expense on refunded issue	20,000,000	93.46	4.44
Unamortized discount and expense on refunded issue	839,200	3.92	
True net proceeds from refunding issue	\$19,160,800	89.54%	4.72%

proceeds actually available to the company for investment in its business remain \$19,160,800, consisting of the \$17,902,000 originally realized by the company from flotation of the refunded issue plus the sum of \$1,258,800 representing 12 years' accumulated provision for amortization of discount and expense on this original issue.

Assuming that the amount of the refunding issue had been less than \$21,400,000, thereby making it necessary for the company to provide part of total cash redemption requirements out of its cash working capital, it follows that the true net proceeds assignable to the refunding issue would have been equivalent to the \$17,902,000 originally realized from the old issue plus \$1,258,800 accumulated provision for amortization, *less* the amount of the draft upon the company's cash working capital necessary to supplement cash proceeds from the refunding issue. In other words, the mere fact that a company's cash position may enable it to accomplish a refunding operation without securing all funds required to redeem the old issues from proceeds of the refunding issue does not vitiate the propriety of treating redemption premiums and unamortized discount and expense on refunded issues as a part of the total discount and expense chargeable against the refunding issue.

Another point which must be borne in mind in the consideration of this subject is that only by reason of the existence of a physical plant with an established business and a demonstrated earning capacity is a public utility able to market a refunding bond issue at a low interest rate. Obviously, a much higher rate would have to be paid in order to attract the funds necessary to finance an entirely new enterprise as distinguished from a going concern.

To hold that redemption premiums and unexpired discount and expenses on refunded bond issues should not be considered in computing the cost of a refunding issue would be to overstate the historical net proceeds from bond financing and be akin to arguing for evaluation of money costs on a reproduction-cost basis with complete disregard of historical considerations. At a time when regulatory bodies are placing increasing emphasis on the principle of historical cost as applied to public utility property it would be inconsistent, to say the least, to depart from this principle as regards cost of bond money and to require as a condition precedent to authorization of a refunding bond issue that redemption premiums and unexpired discount and expense on the old issues shall be charged off against surplus instead of being carried forward as a legitimate part of the total discount and expense applicable to the refunding issue.

A review of the position taken by state regulatory commissions with reference to the disposition of redemption premiums and unamortized discount and expense on refunded bond issues discloses that majority practice is to allow these items to be carried forward as a part of total discount and expense chargeable to and amortizable over the life of the refunding issue. While the New York and Ohio commissions require as a condition precedent to authorization of refunding operations that these items shall be charged off against surplus, it is significant to note that other outstanding commissions, such as those in California and Wisconsin, have taken a more liberal view and approved the transfer to the refunding issue of call premiums and other redemption expenses on retired issues together with such discount and expense on these

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issues as properly remained unamortized on the refunding date. For example, the Wisconsin Commission's uniform system of accounts specifically provides that:

"When one issue or series of bonds is converted into or its redemption is financed by another issue or series before the date of maturity of the first issue, any unamortized discount or premium on the first issue and any premium paid or discount earned on the bonds retired and converted or refinanced shall be transferred to the second issue and amortized over the life of the latter, provided, however, that the amount of discount, premium and expense on the issue redeemed, carried to discount and expense or premium on the new issue does not establish an effective interest rate on that issue in excess of the effective rate on the obligations retired. In the event such increase in effective interest were to result, there shall be transferred to discount or premium on the new issue only that amount of the discount, premium and expense on the redeemed obligations that will establish the same effective rate of interest; and the excess of discount, premium and expense on the debt retired shall be charged to account 515, Loss on Redemption of Long-Term Debt."

In December, 1935, the Federal Power Commission issued a tentative draft of a new uniform system of accounts applicable to all public utilities subject to its jurisdiction. This tentative draft made no specific provision for the disposition of redemption premiums and unamortized discount and expense on bond issues redeemed in connection with refunding operations, although other provisions relating to treatment of bond discount and expense indicated that possibly the Commission's intention was that these items should be charged off against current income at the time of refunding. An accounting committee representing the electric util-

ity industry requested that this point be clarified and that, subject to reasonable limitations, permission be given to amortize the redemption premiums and unamortized discount and expense of redeemed issues over the life of the refunding issue, in order that interest-saving refunding operations might not be obstructed. The Commission evidently considered this a reasonable request as evidenced by incorporation of the following provision in the final draft of its new system of accounts as formally adopted on June 16, 1936, and scheduled to become effective on January 1, 1937:

"When the redemption of one issue or series of bonds or other long-term obligations is financed by another issue or series before the date of maturity of the first issue, any unamortized discount, expense, or premium on the first issue and any premium paid or discount earned on reacquirement shall be debited or credited, as appropriate, to account 414, Miscellaneous Debits to Surplus, or account 401, Miscellaneous Credits to Surplus, *provided, however, that if the utility desires to amortize any of the discount, expense or premium associated with the issuance or redemption of the first issue over a period subsequent to the date of redemption, the permission of the Commission must be obtained.*"

Although the above provision is less liberal than that embodied in the Wisconsin classification of accounts, in that the Federal Power Commission's permission must be obtained before redemption premiums and unamortized discount and expense on old issues can be transferred to discount and expense on a refunding issue, the fact that the Commission has left the way open to continuation of a generally accepted accounting practice should be good evidence of its propriety.

Judicial Review of the Indiana Public Service Commission: The Johnson Act Re-examined

By JOHN D. MILLETT*

I

PRECEDING amendment of the United States Code in 1934, much was said about the relative merits of state and federal judicial review of the decisions of state administrative tribunals.¹ On the one hand were those who indulged in speculation as to the capacity, integrity, and impartiality of federal judges contrasted with state judges. While others, with the experience of utility regulation primarily in mind, were aroused by such abuses as the more than 10-year litigation in the federal courts of both the Chicago Telephone Company and the New York Telephone Company.² To these last the immediate cause of concern was the ease with which public utilities were able to make use of the provisions of the Fourteenth Amendment to transfer judicial review of public service commission orders from state to federal courts. The advocates of the 1934 legislation maintained that adequate and fair review was to be had in the state courts. It was evidently taken for

granted that the record of the state courts in the review of administrative orders had been more favorable to regulation in the consumer interest and harsher toward contentions of the utilities. It seems worth while to examine the justification for this evident assumption in a state where hostility to federal court interference was considerable and discontent with utility regulation general.

In Indiana there were indeed grounds for enthusiasm over the prospect of limiting jurisdiction of the federal district courts, especially in rate controversies. For one thing, a few outstanding cases in which the federal courts had overthrown orders of the Public Service Commission refusing rate increases had focussed attention upon this serious stumbling block to effective utility regulation. Especially were the cases concerning the Indiana Bell Telephone Company³ and the Indianapolis Water Company⁴ such as to attract general notice. Of eight cases for which written opinions are available,⁵ taken to the

from the Commission to the federal district courts in Indiana. It may not be altogether just to use the available decisions alone, but the figures are nevertheless not without significance.

Besides the two cases cited above, these eight include: *Greencastle Waterworks Co. v. Public Service Commission*, 31 Fed. (2nd) 600 (1929); *Vincennes Water Supply Co. v. Public Service Commission*, 34 Fed. (2nd) 5 (1929); *Batesville Telephone Co. v. Public Service Commission*, 46 Fed. (2nd) 226 (1931); *Indiana General Service Co. v. McCordle*, 1 Fed. Supp. 113 (1932); *Northern Indiana Public Service Corporation v. Public Service Commission*, 1 Fed. Supp. 296 (1932); and *Wabash Valley Electric Co. v. Singleton*, 1 Fed. Supp. 106 (1932), affirmed by the Supreme Court, 287 U. S. 488. This last was the only case sustaining the Public Service Commission.

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¹ For an excellent early discussion of this subject see D. E. Lilienthal, "The Federal Courts and State Regulation of Public Utilities," 43 *Harvard Law Review* 379 (1930).

² See Hearings, House Committee on the Judiciary, 73rd Congress, 2nd Session (Feb. 27, 28, March 1, 1934), pp. 7, 10-12, 23, for discussion of the New York case, and pp. 70-71, for the Chicago case.

³ *Indiana Bell Telephone Co. v. Public Service Commission*, 300 Fed. 190 (1924).

⁴ *McCordle v. Indianapolis Water Co.*, 272 U. S. 400 (1926).

⁵ In the past, opinions have been written and published in only a fraction of the cases actually taken

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federal courts in the eight years from 1924 to 1932, seven were decided in favor of the utility over the Public Service Commission. Six of the eight cases were rate controversies, and in only one of these was the order of the Commission sustained.

In the spring of 1932 one member of the Indiana Public Service Commission publicly declared that the intervention of the federal courts in state utility questions was destroying every vestige of state control over utility rates.⁶ He stated,

"There have been many orders of the Public Service Commission affecting the valuation and rates of public utilities carried to the federal courts in confiscation cases in Indiana, and of the entire number the Commission has been sustained but one time, and that case is now on appeal to the Supreme Court of the United States."

By way of illustrating the wide differentiations, Commissioner Ellis tabulated the comparative valuations of the Commission and of the federal court in nine important cases:

	Valuation by Public Service Commission	Valuation by Federal Court
Indianapolis Water Co...	\$16,455,000	\$19,000,000
Indiana Bell Telephone Co.....	32,000,000	36,000,000
Citizens Gas Co. (Indianapolis).....	12,000,000	16,000,000
Central States Gas Co. (Vincennes).....	482,845	739,572
Greensburg Water Co..	225,000	340,000
Steuben County Tele- phone Co.....	242,000	278,444
Greencastle Water Co...	300,000	350,000
Liberty Telephone Co...	90,000	114,000
Vincennes Water Supply Co.....	725,000	1,032,064

The Commissioner went on to say that at that particular moment five cases involving rate orders of the Public Service Commission were pending in the federal district court.

Additional complaint of federal court interference was voiced in February,

1934, before the House Committee on the Judiciary by Sherman Minton, Public Counselor of the Indiana Commission and now a United States Senator. Mr. Minton told the Congressional committee,

"The Commission, as presently constituted, has been in office one year. The Commission has never written an order in a contested case up to the present time that has not been taken into the Federal Court. . . . There was the Rockford case, the South Bend Gas cases, which are merger cases, and we have just completed a large hearing on an electric case, comprising the whole southern part of Indiana, some 270 towns, and we have information that the utility has a bill already prepared, so that, if the Commission writes the order against them, to the Federal Court we go again."

Mr. Minton indicated the delay involved in this procedure by mentioning the pending Indianapolis Water Company case, which was begun in 1931, taken into the federal court in April, 1932, heard by a specially appointed master from May until August, 1933, and with the briefs filed, was yet to be heard by a bench of three judges. The Public Counselor concluded his observations with the declaration,

"There is the constant threat of being taken to the Federal Court with the attendant delay and expense, so that as a result we have constantly to negotiate with the utilities and take less than we are entitled to take, in order that we may save time and expense to the ratepayers. For instance, in the Indianapolis Water Company case they were still amortizing the expenses of the 1926 rate case at the time we heard the case out there in the Federal Court; and they were still amortizing in Indianapolis to the tune of \$30,000 per annum in the expenses of that case."⁸

⁶ Speech by Howell Ellis reported in *The Indianapolis Star*, April 19, 1932. A copy of this speech is in the writer's possession.

⁷ Hearings, House Committee on the Judiciary, *op. cit.*, p. 47.

⁸ *Ibid.*

It seems not unlikely that the final form of the legislation enacted by Congress in 1934 was the result of such testimony as the foregoing from those representing the public service commissions of the various states. Bills had been introduced to nullify federal jurisdiction based upon the diversity of citizenship clause of the Constitution. This move was aimed at the practice of incorporating in a different state than the one in which the business activity of a company was for the most part carried on, simply in order to claim federal jurisdiction in legal controversies. The Attorney-General of the United States was among those who sponsored in 1932 a bill providing that a corporation organized under the laws of a state other than that of its place of business activity should be treated as a citizen of the latter in suits arising between itself and residents of the state.⁹

Such an amendment to the judicial code of the Federal Government would have done little for those states, and Indiana was one, where a utility in order to secure an indeterminate permit for operation had to be a citizen of the state. What Congress finally did was to aid the state public service commissions directly. The act of May 14,

1934, more commonly called the Johnson Act, provided that

"no district court shall have jurisdiction of any suit to enjoin, suspend, or restrain the enforcement, operation, or execution of any order of an administrative board or commission of a State, of any rate-making body of any political sub-division thereof, or to enjoin, suspend, or restrain an action in compliance with any such order, where jurisdiction is based solely upon the grounds of diversity of citizenship, or the repugnance of such order to the Constitution of the United States, where such order (1) affects rates chargeable by a public utility, (2) does not interfere with interstate commerce, and (3) has been made after reasonable notice and hearing, and where a plain, speedy, and efficient remedy may be had at law or in equity in the courts of such State."¹⁰

The effect of such legislation, granting its constitutionality which was reluctantly admitted as probable even by its ardent opponents,¹¹ is primarily to transfer cases involving commission orders from federal to state courts. State judicial review of the decisions of state administrative boards, and especially of the orders of public service commissions, takes on a new importance. It had been pointed out, however, during the lengthy Congressional hearings that already the majority of cases involving appeals from orders of state

⁹ See Hearings, Senate Committee on the Judiciary, 72nd Congress, 1st Session (March 18, 19, 1932). Also Hearings, House Committee on the Judiciary, same session (May 4, 1932).

¹⁰ 48 U. S. Stat. at L. 775. That the very requirement of a "plain, speedy, and efficient remedy" at law or in equity may provide grounds for federal review is demonstrated in a recent decision of the United States Supreme Court handed down December 23, 1935. In *Corporation Commission of Oklahoma v. Cary*, 56 Sup. Ct. Rep. 300, the Court held that the Federal District Court for the Western District of Oklahoma had not exceeded its jurisdiction under the Johnson Act in granting a temporary injunction to the Consolidated Gas Service Co., against a rate reduction. Because of the peculiar provisions of the Oklahoma Constitution which permit the Supreme Court of that State to substitute its own discretion for that of the Corporation Commission, it was held that there was

reason for believing that the state court was acting in a legislative and not in a judicial capacity, and that consequently the conditions of the Johnson Act which extend immunity from federal district court interference had not been met. How wide a breach has thus been made in the Act of May 14, 1934 remains to be seen.

¹¹ Mr. Edward W. Everett, representing the American Bar Association, told the Senate Committee on the Judiciary, "Although that provision of the Constitution (Sec. 2, Article III) is not self-executing and requires legislative action in order to make it operative, yet the purpose of the section is clear and the mandate of the people from the earliest time has been given vitality and vigor by proper legislation." Hearings, Senate Committee on the Judiciary, 73rd Congress, 1st Session (May 26, 1933), p. 5. Cf. Hearings, House Committee, 73rd Congress, 2nd Session, pp. 59-60.

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regulatory commissions went to state rather than to federal courts.¹² Certainly it is true that the state courts had built up for themselves a considerable amount of law pertaining to the review of administrative orders. In the light of the strenuous opposition to the federal legislation and the evident reluctance of the utilities to face state courts, it is interesting to note just how formidable for public utilities have been these state court decisions. The orders of public service commissions have not been suddenly freed from judicial action; rather the practice and law of that review have been more localized.¹³

¹² See tables, Hearings Senate Committee on the Judiciary, 72nd Congress, 1st Session, p. 59. Also Hearings, 73rd Congress, 1st Session, p. 5.

¹³ It is generally agreed that if a utility in its suit against a commission order claims deprivation of property without due process of law, it may still appeal an adverse state court decision to the United States Supreme Court. However, it is not so clear that a public service commission may appeal from the highest court of the state a decision overthrowing its order. If the Fourteenth Amendment is one of the reasons adduced against the validity of an order, it would appear that the commission also has the right of appeal. Cf. Title 28, Chapter 9, Section 237, paragraph b, *United States Judicial Code*. But it must be acknowledged that this is a point which awaits judicial clarification. Of course, the United States Supreme Court may refuse review, which is virtually a confirmation of the state court's decision.

¹⁴ The writer has excluded cases in which the court was called upon to construe some feature of the Public Service Commission Act but in which an order of the Commission was not involved. Also cases holding over from the preceding Railroad Commission have not been considered.

¹⁵ Class I, Commission order upheld: (1) *Northern Indiana and Southern Michigan Telephone and Telegraph Co. v. Peoples Mutual Telephone Co., Public Service Commission et al.*, 184 Ind. 267, 111 N. E. 4; 187 Ind. 486, 119 N. E. 212 (1916-1918); (2) *Winfield v. Public Service Commission*, 187 Ind. 53, 118 N. E. 531 (1918); (3) *Public Service Commission v. Girtton*, 189 Ind. 627, 128 N. E. 690 (1920); (4) *City of Washington v. Public Service Commission*, 190 Ind. 105, 129 N. E. 65 (1921); (5) *Public Service Commission v. City of Indianapolis*, 193 Ind. 37, 137 N. E. 705 (1922); (6) *Fishback v. Public Service Commission*, 193 Ind. 282, 138 N. E. 346 (1923); (7) *McCardle v. Board of Commissioners of Marion County*, 195 Ind. 281, 144 N. E. 877 (1924); (8) *McCardle v. Akron Telephone Co.*,

II

A study of 28 decisions directly involving orders of the Public Service Commission of Indiana from the time of its creation in 1913 to 1935¹⁴ affords an indication of the state court's attitude toward the Commission. Interestingly enough, the record is evenly divided. In 14 cases of appeal from Commission orders the court has upheld the Commission order, and in 14 other cases the orders of the Commission have been reversed.¹⁵

While this even division of cases is interesting primarily from the standpoint of the relation of the court to

87 Ind. App. 59, 156 N. E. 469 (1927); (9) *In re Northwestern Indiana Telephone Co.*, 201 Ind. 667, 171 N. E. 705 (1930); (10) *Public Service Commission v. Baltimore and Ohio Railroad Co.*, 202 Ind. 449, 176 N. E. 551 (1931); (11) *Baltimore & Ohio Railroad Co. v. Public Service Commission*, 202 Ind. 618, 177 N. E. 260 (1931); (12) *Louisville and Nashville Railroad Co. v. Public Service Commission*, 206 Ind. 51, 185 N. E. 902 (1933); (13) *New York, Chicago and St. Louis Railroad Co. v. Singleton*, 190 N. E. 761 (1934); (14) *Public Service Commission v. City of LaPorte*, 193 N. E. 668 (1935).

Class II, Commission order overthrown: (1) *Public Service Commission v. State ex rel. Merchants Heat and Light Co.*, 184 Ind. 273, 111 N. E. 10 (1916); (2) *State ex rel. Indianapolis Traction and Terminal Co. v. Lewis et al.*, 187 Ind. 564, 120 N. E. 129 (1918); (3) *Indiana Harbor Belt Railroad Co. v. Public Service Commission*, 187 Ind. 660, 121 N. E. 540 (1918); (4) *Public Service Commission v. Cleveland, Cincinnati, Chicago, and St. Louis Railroad Co.*, 188 Ind. 197, 121 N. E. 116 (1918); (5) *Chicago, Indianapolis, and Louisville Railroad Co. v. Public Service Commission*, 188 Ind. 334, 116 N. E. 303 (1918); (6) *Public Service Commission v. Frazee*, 188 Ind. 573, 122 N. E. 328 (1919); (7) *Greensburg Water Co. v. Lewis et al.*, 189 Ind. 439, 128 N. E. 103 (1920); (8) *Valparaiso Lighting Co. v. Public Service Commission*, 190 Ind. 253, 129 N. E. 13 (1921); (9) *Public Service Commission v. Lake Erie and Western Railroad Co.*, 191 Ind. 436, 133 N. E. 492 (1922); (10) *New York Central Railroad Co. v. Public Service Commission*, 191 Ind. 627, 134 N. E. 282 (1922); (11) *Columbus Gas and Light Co. v. Public Service Commission*, 193 Ind. 399, 140 N. E. 538 (1923); (12) *City of New Albany v. Public Service Commission*, 193 Ind. 416, 140 N. E. 433 (1923); (13) *American Foundry Co. v. Chicago, Indianapolis and Louisville Railroad Co.*, 173 N. E. 458 (1930); (14) *City of Logansport v. Public Service Commission*, 202 Ind. 523, 177 N. E. 249 (1931).

the Public Service Commission, even more revealing is the result when considered in the light of the relative favorableness or unfavorableness of the decisions to the utilities involved. In the class of cases in which the administrative order was upheld by the court, seven of the orders were in their original form favorable to the utility and were attacked by some interested public party. Or, stating the converse, seven Commission orders which placed some burden upon a utility were upheld by the court. On the other hand, when we turn to the class of cases in which the Commission order was overthrown, the analysis is far more startling. In 13 of the 14 cases of this category the order of the Commission originally had been unfavorable to the utility and was overthrown by the court.

The fourteenth case is, as a matter of fact, not a clear case, and even its inclusion here is questionable. In *City of New Albany v. Public Service Commission* the court upheld the right of the City to continue its original suit for lowering utility rates despite the fact that some slight reduction had been granted by the Commission after institution of the suit. The Commission had argued that the City of New Albany could not proceed further since a rate reduction had been granted, but this contention was not sustained by the court. If we exclude this case altogether from consideration, as we might well do, the record shows that, in an unbroken string of 13 reversals of Commission orders, the utilities concerned benefited thereby.

Of the 28 cases listed, only 12 are rate cases, and these likewise are divided

evenly between orders of the Commission sustained upon judicial review and orders overthrown. But here again these figures are not sufficiently revealing. In the six cases where the rate order of the Commission was upheld, four of these orders granted rate increases, and only two of the orders contained rate reductions. Of the six orders which the court overruled upon appeal from the Commission, every one commanded a rate reduction on the part of the utility.

Consequently, if we should conduct our inquiry not from the point of view of one interested in the extent to which administrative orders have been upheld or overturned in the courts, but rather from the standpoint of the utilities' record of favorable and unfavorable decisions, we find that 20 of the 28 cases here recorded were actually victories for the utilities concerned.¹⁶ The face of the record itself makes it difficult to understand the reluctance of public utilities to be confined to state courts. It is obviously dangerous to assume that because of the act of Congress of May 14, 1934, the struggle for adequate and equitable regulation of public utilities has been freed from the possibilities of judicial strait-jacketing—not to say judicial strangulation.

III

It must be recognized, to be sure, that analyses based entirely upon numbers involve inherent dangers and that they do not necessarily indicate qualitative standards. While the foregoing figures are illuminating, it is necessary to examine the decisions of the court before we can arrive at any conclusions

¹⁶ It must be remembered, of course, that utilities do not ordinarily take appeals to the courts unless they feel fairly certain that they have a strong case. This may have much to do with the high proportion of utility contentions upheld by the courts. Further-

more, unfortunately, it is not possible to set up definite standards taking into consideration the compromises and adjustments made in the court which frequently result in the evident triumph of the utility being less meaningful than it seems.

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as to state judicial review of the orders of the Public Service Commission of Indiana.

The Indiana Supreme Court has consistently recognized the Public Service Commission as an administrative agency, as an arm of the Legislature, which permits judicial review for certain causes and extends immunity in other respects. The court declared that

"the Public Service Commission is not a legislature, although when exercising its rate making power it is performing a legislative act. It is not a court, yet in certain matters its acts, in a sense, are quasi-judicial. More strictly speaking, it is an administrative body, charged with ministerial and in some instances with legislative duties; or in other words, it is a legislative agency, assumed to be qualified by knowledge and experience to regulate the public utilities of the state with reasonable fairness and substantial justice, not only to the public, but to the utility as well."¹⁷

Later the court amplified its description of the position of the Commission when it said that the Commission is

"a purely administrative board created by the state and by legislation given only administrative and ministerial powers. While it may be properly characterized as an administrative arm of the legislature, yet it has no legislative authority. It may be termed an agent of the state charged with certain administrative duties, which prior to the enactment of the law creating the Commission, were, by the state, delegated to the state's municipalities or the political sub-divisions of the state."¹⁸

On the other hand, it has been declared with equal emphasis that the Commission is not a court.

"It has been frequently decided that the functions vested by the legislature in com-

missions, such as our Public Service Commission, are not judicial in their nature, but that they are administrative in character. This being true, it follows that the proceedings before such bodies are not judicial proceedings, and that their orders are not judgments, but are administrative orders."¹⁹

Such a definition of status has permitted the trial court when it grants appeal from the orders of the Commission to hear the evidence *de novo*. There has been no attempt, elsewhere unsuccessful,²⁰ to make Commission findings of fact binding upon the courts. That the court is neither bound by the evidence given before the Commission nor by the Commission's interpretation of that evidence has been asserted in a number of cases.²¹ It is not intended, however, that the courts should willfully disregard the evidence gathered by or placed before the Public Service Commission.

"The courts, in reviewing the work of the Commission, must keep in mind that they have to do with questions calling for judicial interpretation as distinguished from matters administrative. So long as the Commission keeps within the field of regulative powers over persons or entities over which it has jurisdiction, its orders and actions with reference to such matters must be respected by the courts. The presumption of good faith and valid orders by the Commission must obtain until the contrary is made clearly to appear."²²

Particularly in two recent and important cases has the Supreme Court of Indiana declared that burden of proof for overthrow of a Commission order lies with the complainant. In *Public*

²⁰ *Ohio Valley Water Co. v. Ben Avon Borough*, 253 U. S. 287 (1920).

²¹ *Public Service Commission v. Lake Erie and Western Railroad Co.*, 191 Ind. 436 (1920); *Indiana Harbor Belt Railway v. Public Service Commission*, 187 Ind. 666 (1918); *Public Service Commission v. Frazee*, 188 Ind. 573 (1919).

²² *In re Northwestern Telephone Co.*, 201 Ind. 667 at 674 (1930).

¹⁷ *State ex rel. the Indianapolis Traction and Terminal Co. v. Lewis et al.*, 187 Ind. 564 at 569 (1918).

¹⁸ *In re Northwestern Telephone Co.*, 201 Ind. 667 at 673 (1930).

¹⁹ *Public Service Commission v. Cleveland, Cincinnati, Chicago, and St. Louis Railroad Co.*, 188 Ind. 197 at 201 (1918).

*Service Commission v. Baltimore and Ohio Railroad Company*²³ the court pointed out that an injunction could not be had for the mere asking, but that the complainant must present *prima facie* evidence of a right to relief asked for. The mere fact that revenues will be reduced is not sufficient evidence to overthrow an order. In the case of the *New York, Chicago and St. Louis Railroad Company v. Singleton*²⁴ the court was even more explicit when it declared that, if an order of the Public Service Commission had substantial evidence in its favor, then it must be upheld by the courts. The Commission is not compelled to introduce new evidence at the trial when the transcript of the evidence heard by the Commission is available and on file with the court. Moreover, the administrative character of Commission orders makes unnecessary any formal procedure in the hearings before that body,²⁵ and on appeal the statutory permission to produce supplementary evidence after institution of the suit, or to continue that same suit despite some alteration or modification in the facts is quite legitimate, since the rules of the Civil Code do not govern in this type of case.²⁶

Appeal from the orders of the Commission is provided by statute to a circuit court or to the Superior Court

of Marion County (Indianapolis) sitting *en banc*, and thence to the Supreme Court within 30 days. In the courts such appeals have priority over all other pending suits.²⁷ The Supreme Court has dealt severely with appeals not prosecuted within the statutory time limit,²⁸ and has insisted that resort may not be had to the courts until all possible remedies, rehearings, etc., have been exhausted before the Commission.²⁹ Only two grounds for contesting an order of the Public Service Commission are recognized by the courts. In numerous decisions it has been pointed out that a Commission order must be attacked on the grounds of reasonableness, or that the Commission order was beyond the scope of its authority, *ultra vires*.³⁰ Reasonableness may be questioned if fraud can be shown in the issuance of a Commission order, but a mistake in judgment does not constitute fraud,³¹ and since the court acts judicially and not ministerially the charge of error cannot be adduced against an order.³² Furthermore, reasonableness can be questioned in connection with the public necessity of an order. Where the evidence tends to show that the benefit from an order of the Commission will devolve primarily upon some individual or company, that order is subject to the declaration of unreasonableness by the court and the granting of an injunction

²³ 202 Ind. 449 (1931).

²⁴ 190 N. E. 761 (1934). A nice legal question confronts a state court in determining just how far within the delimitations of the Ben Avon case (n. 20) it may presume valid orders on the part of the Public Service Commission, especially when a utility claims confiscation. Cf. below, Section IV, the direct quotation from the United States Supreme Court's holding in the Ben Avon case.

²⁵ *In re Northwestern Telephone Co.*, *supra*, n. 22.

²⁶ *City of New Albany v. Public Service Commission*, 193 Ind. 416 (1923). Under the Indiana statutes, the introduction of new evidence in the court hearing does not operate automatically to send a Commission order back to the Commission.

²⁷ Burns Indiana Statutes Annotated, 1933, Vol. 10, Title 54, Section 203, p. 344.

²⁸ *Fishback v. Public Service Commission*, 193 Ind. 282 (1923); *Baltimore and Ohio Railroad Co. v. Public Service Commission*, 202 Ind. 618 (1931).

²⁹ *McCardle v. Board of Commissioners of Marion County*, 195 Ind. 281 (1924).

³⁰ *In re Northwestern Telephone Co.*, 201 Ind. 667 (1930); *New York, Chicago and St. Louis Railroad v. Singleton*, 190 N. E. 761 (1934); *Public Service Commission v. City of LaPorte*, 193 N. E. 668 (1935); *City of Washington v. Public Service Commission*, 190 Ind. 105 (1921); *Public Service Commission v. City of Indianapolis*, 193 Ind. 37 (1922).

³¹ *Public Service Commission v. Indianapolis*, 193 Ind. 37 (1922).

³² *Public Service Commission v. LaPorte*, 193 N. E. 668 (1935).

against its enforcement.³³ Public necessity and benefit must be claimed by the Commission in behalf of its orders.³⁴ Reasonableness may be further contested upon the grounds that a Commission order does not meet the statutory provisions as to definiteness, as in a failure to stipulate provisions for maintenance in ordering the construction of interchange tracks between two railroads.³⁵ On the other hand, the granting by the Commission of damages for losses because of unreasonable rates charged previous to a rate reduction order is clearly beyond the authority of the Commission and hence void.³⁶

Great scope for contesting Commission orders upon grounds of unreasonableness lies in the field of utility valuation. In a well known case involving a municipally owned utility the supreme court insisted that such a utility was entitled, like any other, to earn a fair return upon its investment, and was not compelled to render service at cost.³⁷ A rate reduction order was consequently enjoined. A contract for supplying electricity to a utility by some other company has property value which must be considered for rate-making purposes in determining the fair value of a utility.³⁸ Some years before the United States Supreme Court's decision in the St. Louis and O'Fallon Railway case the Indiana court had held that present reproduction cost as well as going value and the amortization of previous deficits must be vital parts of any fair valuation of a utility's property.³⁹ In each

one of these cases the charge of unreasonableness led to a successful appeal from a Commission order.

Another problem concerns the power of the court to grant affirmative relief by ordering the Commission to perform certain duties. In two early cases the court did permit the issuance of a writ of mandamus against the Public Service Commission. Where a company had undertaken certain construction tasks for a city amounting to a definite sum, it was entitled to issue bonds to that amount for reimbursement, and the court held that a writ of mandamus to the Commission did lie when the Public Service Commission had granted authority to issue bonds only for a lesser sum. The court was of the opinion that inasmuch as the company had met statutory requirements, no discretion on the part of the Commission was involved, and since other appeal in law did not lie in this case, the writ should be granted.⁴⁰ For somewhat similar reasons the Supreme Court also allowed a writ of mandamus against the Commission to compel a hearing asked by a utility to increase its rates. It was charged that, because of higher costs brought about by the emergency of the world war, the existing rate structure was not sufficient to meet costs of operation. The Commission refused to hold any hearing on the desired rate increase. Once again for lack of legal basis of appeal upon the mere refusal of the Commission to act, the court allowed mandamus.⁴¹ But,

and Louisville Railroad Co., 173 N. E. 458 (1930).

³⁷ *Logansport v. Public Service Commission*, 202 Ind. 523 (1931).

³⁸ *Valparaiso Lighting Co. v. Public Service Commission*, 192 Ind. 253 (1923).

³⁹ *Columbus Gaslight Co. v. Public Service Commission*, 192 Ind. 253 (1923). The O'Fallon case (279 U. S. 461) was decided in 1929.

⁴⁰ *Public Service Commission v. State ex rel. Merchants Heat and Light Co.*, 184 Ind. 273 (1916).

⁴¹ *State ex rel. Indianapolis Traction and Terminal Co. v. Lewis et al.*, 187 Ind. 564 (1918).

³³ *Public Service Commission v. Cleveland, Cincinnati, Chicago, and St. Louis Railroad*, 188 Ind. 197 (1918); *Chicago, Indianapolis and Louisville Railroad Co. v. Public Service Commission*, 188 Ind. 334 (1918).

³⁴ *Ibid.* Also, *Indiana Harbor Belt Railway Co. v. Public Service Commission*, 187 Ind. 660 (1918); *McCardle v. Akron Telephone Co.*, 87 Ind. App. 59 (1927).

³⁵ *New York Central Railroad Co. v. Public Service Commission*, 191 Ind. 627 (1922).

³⁶ *American Foundry Co. v. Chicago, Indianapolis*

in general, the doctrine is adhered to that the courts cannot grant affirmative relief.⁴² It is recognized that no appeal lies from an order of the Commission granting a corporation permission to issue stocks or bonds, or fixing the price at which a public utility may sell property, or granting permission for one utility to buy another.⁴³ In a case in which the Public Service Commission had refused the petition of a telephone company to sell its capital stock and assets to another company, the circuit court reversed the order of the Commission and ruled that the Commission should act on the very terms as set forth in the petition. The supreme court overruled the lower court, saying that the substitution of the court's discretion for that of the Public Service Commission was beyond the court's power, since such action clothes the court with administrative or ministerial duties and is an arrogation of legislative authority.⁴⁴

IV

There is no intention or need here to consider the whole question of judicial review of administrative decisions in its broader aspects.⁴⁵ In general, our final attitude toward the desirability and merits of judicial review must de-

pend upon the actual practice of that review in our different governmental spheres. In large measure much depends, of course, upon the personnel of the judiciary and also upon the personnel and careful procedure of administrative bodies.⁴⁶ For the present study no other conclusion is tenable than that the remedies afforded by the state court for the relief of public utilities are adequate and extensive. Certainly the evidence does not suggest that the state courts have been harshly or arbitrarily inclined toward utility companies. Moreover, judicial construction of the "reasonableness" of Commission orders tends to offer about as wide a scope for utility protection as was afforded by the due process clause of the Fourteenth Amendment. The holding of the United States Supreme Court that when a utility claims confiscation of its property "the State must provide a fair opportunity for submitting that issue to a judicial tribunal for determination upon its own independent judgment as to both law and facts"⁴⁷ has been complied with in Indiana law.

Future developments in state judicial review of Public Service Commission orders are obviously impossible to forecast. The Singleton case, mentioned

⁴² *McCardle v. Board of Commissioners of Marion County*, 195 Ind. 281 (1924).

⁴³ *Public Service Commission v. City of Indianapolis*, 193 Ind. 37 (1922). In this case the court indicated that a successful attack upon this type of Commission order could only be made in a court of chancery upon the grounds of fraud or that the Commission order was *ultra vires*.

⁴⁴ *In re Northwestern Telephone Co.*, 201 Ind. 667 (1930). This doctrine of the Indiana court takes on new importance in the light of the recent United States Supreme Court decision in *Corporation Commission of Oklahoma v. Cary*, *supra*, n. 10.

⁴⁵ See especially John Dickinson, *Administrative Justice and the Supremacy of the Law* (Cambridge: Harvard University Press, 1927); and F. F. Blachly and M. E. Oatman, *Administrative Legislation and Adjudication* (Washington: Brookings Institution, 1934).

⁴⁶ A reorganization of the Indiana Public Service Commission was effected in 1933 by which the number of commissioners was reduced from five to three, a public counselor provided for, and the removal of a commissioner at any time by the governor made possible. The governor has the additional power to fix salaries within certain limits and to determine the need of the Commission for all outside legal and expert, as well as clerical, assistance. (Acts of 1933, C. 93.) Henceforth, a large part of the problem of utility regulation will center about the governor's office. The same act also defined what items should be considered by the Commission in determining utility valuation for rate-making purposes; the exclusion by the act of such items as "going value", for example (Cf. *Columbus Gaslight Co. case, supra*), will undoubtedly lead to difficulty in the courts.

⁴⁷ *Ohio Valley Water Co. v. Ben Avon Borough*, 253 U. S. 287 at 289 (1920).

above, representing the most advanced attitude toward the Commission that the Indiana court has yet taken, was reaffirmed in a decision handed down on February 4, 1936. In *New York, Chicago, and St. Louis Railroad Company v. Public Service Commission*⁴⁸ the Supreme Court restated that, where substantial evidence supported a Commission order, the court must sustain that order, even though it might not have reached the same result on the basis of the evidence. However, while acknowledging the strong presumption of validity which attaches to the order of the Commission, the court repeated that judicial review is *de novo*, and that additional evidence may be introduced in the court which would lead to the voiding of an order. This last declaration is, of course, necessary in the light of the Ben Avon decision of the United

States Supreme Court, and may not quite be a case of withdrawing in a later paragraph what has been so freely extended in an earlier one. A recently discernible liberal tendency toward the Commission on the part of the Indiana court, while still vague, is none the less hopeful.

Nevertheless, the courts undoubtedly will be subjected to considerable pressure ever to broaden the framework of review already developed. Freed from the imminence of federal district court interference, the Public Service Commission must still face the continual probability of appeal to the state courts. Experience may yet urge a broader attempt — a system of administrative courts perhaps—than the Act of May 14, 1934, to meet the problems of review of state administrative determinations.

⁴⁸ 199 N.E. 573 (1934). If this case were added to the numerical computation made in Section II above, the record as of April 1, 1936, rather than of Jan-

uary 1, 1936, would reveal 16 cases in which the Indiana court has sustained Public Service Commission orders as compared with 15 reversals.

A Basis for the Valuation of Marine-View Residence Sites

By GEORGE J. EBERLE*

DURING the past 10 years the real estate market has been upset beyond the expectations of most everyone informed upon the subject. From the high level of prices in the boom of the twenties to the low of the depression in the early thirties exists a span which occurs only once or twice in a century. The former criteria of values have been disrupted and new standards must be formed in the light of this experience. The buying public is supercritical because the recent actual and potential losses have been tremendous.

As an indication of the change in trend, certain subdividers of new tracts in Metropolitan Los Angeles are offering single-family residential lots with 120 feet frontage and with an area of approximately 15,000 square feet for less than \$1,000 as a regular procedure. Not long ago 40-, 50- and 60- foot frontages were considered ample for lots in this price class. Besides, the new lots not only have a wider frontage and a larger area to allow better air, light, and landscaping, but effective restrictions and architectural control are provided as in only the higher class subdivisions in the twenties. Today the alert subdivider, aware of the change, is abandoning the greater part of the old order. Obviously, the establishment of new bases of valuation and marketing will take some time, but progress is being made rapidly. As an indication of this progress the writer offers in the follow-

ing pages a new basis of comparative appraisal of high class, marine-view, residential subdivisions which is being applied in actual practice.

Bases of Rating

The ultimate measures of the desirability of a lot for a single-family home in a tract of land are the satisfactions which are derived from its subsequent use. These satisfactions are numerous and varied, but for convenience may be placed in two main classifications—namely, tangible and intangible.

The tangible gratifications are represented by such economic returns as stability of values in the tract and neighborhood; protective restrictions; low-cost building site; reasonable driving time to places of work, to shopping facilities, to cultural, educational, and recreational centers; moderate taxes and assessments, and low-priced utility services. The intangible returns are experienced by the inspirations from the environment, landscaping, and beautiful views; the feeling of security because one has made a good investment; the thrill received from the enjoyment of cultural and recreational facilities close at hand and the parental satisfaction in knowing that one's children are growing up in wholesome surroundings. Other returns no doubt come to mind, but these in the main portray what the prospective buyer of a single-family home-site is seeking in return for his purchase price.

We will first classify, weight, and apply the attributes which should be considered when purchasing a lot in this type of subdivision; then convert

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Mr. H. W. Moorhouse, Vice-President of the Eberle Economic Service, Ltd., collaborated in this study.

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the asking prices to a standard unit price; and, finally, give an estimate of the attributes, or points of tangible and intangible value, which, in our opinion, the buyer will receive in each subdivision for each dollar of his purchase price.

In Table I are shown the classifications of attributes in some detail, with the respective points, or weights,

TABLE I. BASIS OF RATING THE POINTS OF VALUE OF RESIDENTIAL MARINE-VIEW PROPERTY

Value Factors	Standard Points
Location.....	18
Environment.....	18
Investment status.....	18
Site conditions.....	16
View.....	16
Streets.....	7
Utilities.....	7
Total.....	100

attached to each. Any tract or subdivision, therefore, which would represent average or standard conditions for each classification would be rated a total of 100 points. Any tract or subdivision which attained the ideal situation in all respects would be rated 50% above the standard or as high as a total of 150 points; whereas any tract or subdivision which had the minimum of desirability under each grouping would rate 50% below standard, or could receive a total of only 50 points.

Taking the attributes of location, for example, the standard rating is 18 points, but if the subdivision were perfectly located it would receive a total of 27 points, or 50% above the standard, and if it were extremely poorly located it would be rated at 9, or half the standard points.

Location includes position in the metropolitan area generally; proximity of transportation facilities—motor coach, electric railway, railroad, steamship, airplane; distance in time by private

automobile or common carrier to the metropolitan center, to nearby towns, schools, neighborhood stores, to shopping, educational, cultural and recreational centers; availability of police protection, household help, etc.

Environment embraces climatic conditions—temperature, humidity, altitude, direction and velocity of air movements, rainfall, percentage of days of sunshine; proportion of lots occupied; kind, condition, and appearance of homes in the tract; landscaping; proximity of parks, woods, bodies of water; class of neighborhood, with reference to nearby suburbs, towns, cultural institutions, racial settlements, industries, etc.

Investment status covers such considerations as degree of stability and diversification of economic activities supporting the area; actual and probable movement of upper-income families in the metropolitan area; effectiveness and permanency of zoning, planning, tract restrictions, and architectural control; likelihood of future undue single-family dwelling tenancy; actual or probable excessive taxes, assessments, insurance, or lot maintenance; organization, financial backing, and attitude of owners and promoters of the tract; and clearness of title.

Site conditions include size and shape of lots; soil conditions—sand, gravel, loam, rock, load-bearing qualities; topography—flat, sloping, steep, precipitous; exposure to north, south, east, or west.

View refers to the actual or probable future restricted or unrestricted view of ocean, lakes, rivers, mountains, hills, plains, cities or suburbs, and industries.

Streets are evaluated as to width, grade, pitch, and curvature; condition of surfacing; drainage; traffic; alley access.

Utilities include water, gas, electric and telephone (underground and overhead), street lighting and cleaning, garbage and refuse disposal; sewer.

Automobile Driving Time between Subdivisions and Downtown Los Angeles

Ten active and partially occupied subdivisions were included in the survey.¹ As a component measure of location, numerous tests were made of the driving time, both inbound and outbound, between the heart of Los Angeles and each of the subdivisions. Mileage, signals, boulevard stops, and traffic conditions were noted in each case. The tests which were used to obtain the average running time as shown in Table II were made between the hours of 9 a. m. and 12 noon. The traffic during this period of the day was of medium density. The idea in running these

balance of the speed was governed entirely by the lines of traffic.

In test runs made between the hours of 1 p. m. and 4 p. m. it was found that the driving time ranged from 7 to 15 minutes longer than during the morning period. From 4:30 p. m. to 6 p. m. still more time was required because of increased traffic. The added time of travel, because of traffic congestion, is much less for southwestern points than for the western destinations. Table II presents the summary of distances in miles and minutes.

Application of Ratings

It was deemed advisable to place a rating upon the various factors or attributes of these subdivisions with some degree of exactitude based upon a definite number of sub-points for each. For example, the 18 points for location were subdivided into four groups—namely, general position in the metropolitan area, 5; distance in minutes to the metropolitan center, 8; distance to nearby towns, schools, etc., 4; and police protection, etc., 1. In short, the approach in determining the composite number of points or weighting for each attribute was done upon a statistical basis rather than upon a general opinion basis.

Each subdivision was treated separately in appraising its number of points as well as in giving consideration to the relative position of all subdivisions under a given characteristic. This methodology of appraising the status of each subdivision for particular attributes both absolutely and relatively was a judicious process that proceeded with item for item without knowing the final result of any particular tract until the entire number of points had been assigned.

If in the process some factors in some subdivisions might have been overem-

TABLE II. DISTANCE IN MILES AND TIME BETWEEN SUBDIVISIONS AND DOWNTOWN LOS ANGELES

Subdivision	Distance in Minutes	Distance in Miles	Signals (Number)	Boulevard Stops (Number)
A	32	14.1	25	6
B	34	11.8	28	3
C	35	12.2	28	3
D	43	21.6	23	6
E	45	23.0	23	6
F	45	16.7	28	3
G	46	15.8	36	1
H	50	19.2	28	3
I	58	23.7	28	3
J	60	24.7	28	3

tests was to discover the representative time in which the distance could be covered under normal conditions. The highest speed at any period was 45 miles per hour. Through the 25-mile zones, a running speed as high as 35 miles an hour was maintained. The

¹ The tracts appraised in this study are *all* the subdivisions in the metropolitan area; they have been in existence 10 years or more and are from 10 to 50% occupied today, with active building of new homes taking place in most of them.

phasized, others according to the law of statistical weighting might have been underemphasized and the final result would be a well-balanced total rating.

It will be noted that in some cases certain subdivisions were accorded a perfect score, or 50% above the standard, as under "Environment" Subdivisions C and E were each given 27 points compared with a standard of 18, and under "View" Subdivisions J and E were each rated at 24 points as compared with a standard of 16.

In other cases a very low rating for particular characteristics was given because of serious deficiencies, as, for example, under "Environment" Subdivision A was rated 9 points, or 50% of the standard of 18, because of the close proximity of industries.

Included under the attribute "Investment Status" is an item designated as "actual and probable movement of upper-income families in the metropolitan area." In this connection it is significant that during the entire depression since 1930 the population of Los Angeles County has increased each year according to scientific estimates based upon elementary school data and other data. On April 1, 1930 the *United States Census* reported 2,208,492 persons

in Los Angeles County. The estimate for January 1, 1936 is 2,489,230—an increase of 280,738 persons, or 12.7%. This represents a growth of about 90,000 families in six years. Analyses have been made of the movement of families in the metropolitan area by four income-groups during the past 15 years and the geographical data for the upper two income-groups were used in appraising the probable occupancy of the various subdivisions.

The final assignment of points in conformity with the rating system is shown in Table III.

Actual Front-Foot Price and Standard Front-Foot Price

The actual total prices quoted for representative lots in the various subdivisions² were converted to obtain an actual front-foot price basis. All the various front-foot prices for each subdivision were then reduced to a simple arithmetic average. These average front-foot prices are shown in the first column of Table IV.

Since the lots had varying depths and

² The asking prices used in this study are both those fixed by the subdividers and by individual owners offering lots for resale. Thus the unit prices are actual present market values of lots whether occupied or unoccupied.

TABLE III. SUMMARY OF RATING USED TO WEIGHT STANDARD FRONT-FOOT PRICES TO DETERMINE POINTS OF VALUE OBTAINED FOR EACH DOLLAR OF INVESTMENT

	Location	Environ- ment	Invest- ment Status	Site Condi- tions	View	Streets	Utilities	Total Points
Standard Rating	18	18	18	16	16	7	7	100
Subdivision								
A	20	9	10	10	18	5	6	78
B	23	25	25	18	20	10	10	131
C	23	27	27	16	16	9	10	128
D	18	12	10	14	20	5	5	84
E	20	27	25	20	24	10	8	134
F	20	18	18	24	18	10	10	118
G	20	18	18	22	16	9	6	109
H	18	25	25	24	18	10	10	130
I	10	12	9	14	22	4	7	78
J	10	12	9	12	24	4	8	79

different shapes and sizes, it was necessary again to convert the actual front-foot price for each lot to a standard front-foot price by applying "depth factors" and other adjustments to bring about uniformity for comparative purposes. The results of these various adjustments are represented in the second column of Table IV which again are the arithmetic averages of the standard front-foot prices of the various lots selected from each subdivision.³

TABLE IV. COMPARISON OF AVERAGE ACTUAL FRONT-FOOT PRICES AND AVERAGE STANDARD FRONT-FOOT PRICES

Subdivision	Average Actual Front-Foot Price	Average Standard Front-Foot Price	Rank
A	\$19	\$19	1
I	18	19	2
E	26	22	3
F	27	23	4
C	33	27	5
B	44	33	6
H	36	33	7
D	47	45	8
J	46	49	9
G	72	59	10

In this table, then, the subdivisions have been arranged in order from the lowest average standard front-foot price to the highest. The alphabetical designations will be retained. The strictly price basis is obviously not the best criterion upon which to purchase a lot, but rather the total points of value which each dollar will buy as developed subsequently.

Relative Points of Value Obtained for Each Dollar of Purchase Price

Instead of obtaining the true value per front-foot and an intrinsic margin as in a former analysis in 1928, we deemed it much more equitable to de-

³ There is probably no valid reason why other averages such as the median or mode may not be used if preferable.

termine the relative points of value which each dollar of the purchaser's money will buy. It will be remembered that there is a possibility of a range in ratings from 50 to 150 points, or from the least desirable to the most desirable tangible and intangible conditions surrounding the purchase. After several tests we came to this conclusion: that the purchaser's relative gain in buying lots from the various subdivisions may be measured by the number of points of value which he receives for each dollar of his standard front-foot purchase price. Therefore, it was decided to divide the average standard front-foot price into the total number of points determined by the rating system with the result that this computation will show the points of value which the buyer obtains for each dollar of the purchase price in terms of the standard front-foot price.

It appeared to us that this method is the most fair and equitable basis upon which to compare the various prices and the lots offered for those prices, as to the actual consumer's surplus, or value, which the buyer receives. Particularly will this method show a comparative appraisal of the tangible and intangible values inherent in each subdivision's lot attributes, and at the same time give credit for a low unit price.

In the last analysis in Table V we really have three groups of subdivisions according to the final ratings per dollar of investment. There is an uppermost Group I with about 5 to 6 points per dollar. The middle Group II is a mixture of low-priced and high-priced subdivisions; the latter have, under present conditions, overpriced their offerings, which materially reduces their rating per dollar. This middle group has about four points per dollar, or from

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TABLE V. TOTAL TANGIBLE AND INTANGIBLE VALUES OBTAINED PER DOLLAR AT CURRENT PRICES

Subdivision	Average Standard Front-Foot Price	Relative Points of Value Shown by Rating of Attributes	Relative Points of Value Obtained for Each Dollar of Investment	Rank
Group I				
E	\$22	134	6.09	1
F	23	118	5.13	2
C	27	128	4.74	3
Group II				
A	19	78	4.11	4
I	19	78	4.11	5
B	33	131	3.97	6
H	33	130	3.94	7
Group III				
D	45	84	1.87	8
G	59	109	1.85	9
J	49	79	1.61	10

3.94 to 4.11. Group III is the lowest, including three subdivisions, with rating points per unit less than two—a range from 1.61 to 1.87.

In conclusion, the deduction may be made that the six points of value per dollar received in Subdivision E place this tract in a position at present to give 50% more value per dollar of the purchase price than the middle group of subdivisions with ratings at about four points per dollar, and 200% more value than the lowest group of subdivisions with ratings at about two points per dollar. Subdivisions F and C in Group I on this same basis exceed the middle group by about 33%, and the lowest group by about 150% in value per dollar. It is contended that because of the wide margin of value per dollar on the basis of points in favor of the highest three subdivisions, for instance, any group of unbiased experts may lower or raise this margin, but they would not change the relative position of these subdivisions as to their preferability.

Operating Statistics of Wisconsin Water Departments, 1933, 1934, and 1935

By E. W. MOKE*

WATER departments in Wisconsin, both privately and publicly owned, are under the jurisdiction and regulation of the Public Service Commission. From data contained in the annual reports filed by these departments with the Commission, a brief study has been made of certain comparative ratios of operation for the three-year period, 1933 through 1935.

All communities from 3,000 to 68,000 population are included in this study. This group includes 72 cities and villages which are served by 65 municipally and 7 privately owned plants. In order to make the figures comparable, 5 utilities which purchased all or part of their water supply at wholesale were eliminated. These 5 were excluded from the general ratios of waterworks operation but not from the figures on distribution of operating revenues. Aside from these, about 20 other utilities were excluded from the group for which the distribution of operating revenues by classes of service is summarized, because this classification of revenues was not shown or required in the annual reports.

Milwaukee is the only city in Wisconsin with a population over 68,000. The 1930 *United States Census* lists its population at 578,249. Since it is approximately nine times larger than the next largest city, it has been omitted from comparison in this study.

Comparative operating, turnover, depreciation, tax, and return ratios for these communities for each of the three

years ending with 1935 are shown in Table I. A briefer summary of these ratios as averaged for the three-year period is presented in Table II. The communities have been divided into four population groups with approximately the same number of communities in each group. In addition to the arithmetic average ratios, Table I also shows the range between the highest and the lowest ratios in each group.

Operating Ratio

For purposes of this study operating ratio has been defined as the percentage of operating revenues used for operating expenses *exclusive* of depreciation and taxes, and, in the case of privately owned plants, exclusive also of uncollectible revenues. This ratio¹ represents the cost to the water department of supplying water service as related to the revenue received, and also indicates the margin available for meeting fixed charges and for return. The average operating ratio in 1934 was slightly higher than in 1933, with the exception of utilities serving communities of from 3,000 to 4,000. The averages for all groups were higher in 1935 than in 1934. This would seem to indicate a tendency for operating expenses to increase somewhat faster than operating revenues, comparing only 1934 with 1933, and 1935 with 1934.

The variations among water plants of different sizes are worthy of note. In general, the operating ratio increases as size of plant decreases.

cities, a median average would not be materially different. For the two groups of smaller sized cities it would be from 1.5 to 3.5 points less than the simple average shown.

* Assistant Rate Analyst, Public Service Commission of Wisconsin.

¹ A simple arithmetic average is affected by a few extreme cases. For the two groups of larger sized

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It is interesting to note the range of the operating ratios. For example, in the first population group (20,000 to 68,000) the highest operating ratio was 44.3% in 1933, 50.9% in 1934, and 51.2% in 1935, whereas the lowest ratio was 25.9% in 1933, 26.0% in 1934, and 30.2% in 1935. In other words, there was a range of approximately 18 points between the highest and lowest operating ratios in 1933, 25 points in 1934, and 21 points in 1935 for this size of plant. Ratios for the other sizes of plants can be noted from Table I. Generally speaking, the range between the highest and

lowest operating ratios in every group of plants, except one, was higher in 1934 than in 1933. The range decreased in 1935, the decrease being most significant for the two groups of smaller plants.

As previously stated, the sample group includes 7 privately owned water utilities. Because of the small number of privately owned water utilities, the only comparison that can be fairly made is that between each group as a whole. For municipal plants the average operating ratio of all sizes of plants was 39.7% in 1933, 40.5% in 1934, and 42.5% in

TABLE I. GENERAL RATIOS OF WATERWORKS OPERATION, WISCONSIN MUNICIPALLY OWNED WATER PLANTS,* 1933, 1934, AND 1935

Item	Year	Population Groups			
		20,000- 68,000	8,000- 20,000	4,000- 8,000	3,000- 4,000
Operating Ratio					
Average†	1933	34.3%	38.4%	42.1%	43.3%
	1934	36.4	39.7	42.5	42.9
	1935	37.8	41.6	43.6	46.6
Range†	1933	18.4	27.2	97.9	67.6
	1934	24.9	37.3	88.8	76.6
	1935	21.0	33.7	54.7	60.4
Turnover Ratio					
Average	1933	8.81%	8.79%	9.44%	9.86%
	1934	8.82	8.73	9.26	9.55
	1935	9.03	8.76	9.83	10.02
Range	1933	4.39	5.57	8.07	11.25
	1934	4.87	5.00	6.18	11.55
	1935	4.35	4.11	6.11	11.37
Depreciation					
Average	1933	1.37%	1.49%	1.39%	1.53%
	1934	1.38	1.47	1.39	1.51
	1935	1.46	1.49	1.41	1.47
Range	1933	1.42	.78	2.02	1.02
	1934	1.44	.78	1.95	1.04
	1935	1.01	.78	1.77	1.08
Taxes					
Average	1933	1.59%	1.67%	1.53%	1.21%
	1934	1.57	1.75	1.66	1.40
	1935	1.76	1.81	1.72	1.36
Range	1933	1.09	1.39	1.97	1.65
	1934	1.07	1.58	3.12	2.34
	1935	1.47	1.29	2.38	1.63
Return					
Average	1933	6.04%	4.92%	4.45%	4.52%
	1934	5.93	4.75	4.44	4.93
	1935	5.21	4.43	3.55	3.75

* Excluding those plants which purchase their water supply wholesale.

† By "average" is meant arithmetic average; by "range" is meant the difference between the highest and lowest ratios in the group.

TABLE II. SUMMARY OF STATISTICAL RATIOS, WISCONSIN MUNICIPALLY OWNED WATER PLANTS,* 1933, 1934, AND 1935

Population Group	Statistical Ratio†				
	Operating Ratio	Turnover	Depreciation	Taxes	Return
20,000-68,000.....	36.2%	8.89%	1.40%	1.64%	5.73%
8,000-20,000.....	39.9	8.76	1.48	1.74	4.70
4,000-8,000.....	42.7	9.51	1.40	1.64	4.15
3,000-4,000.....	44.3	9.81	1.50	1.32	4.41

*Excluding those plants which purchase their water supply wholesale.

†A simple arithmetic average of the ratios for the three years combined.

1935. The corresponding figures for the privately owned plants were 38.8%, 40.9%, and 38.4% respectively. Expressed another way, although there is very little difference between the operating ratios themselves, municipally owned plants in 1934 showed a substantially smaller increase in operating ratios than did privately owned plants. In 1935 the ratio for privately owned plants improved to the 1933 level while the ratio for municipally owned plants continued to increase over the preceding year.

Turnover Ratio

The second ratio on which data are given in Tables I and II is the turnover ratio. As used in this study, this signifies the average investment in property and plant that exists for each dollar of annual revenue. Conversely, it also represents the number of years required for aggregate revenues to equal the investment in property and plant. For this purpose a simple average of the opening and closing gross property and plant figures for each year without deduction of depreciation reserve or contributions was used.

This ratio is a very significant one in an industry requiring large amounts of fixed investment. Where the turnover ratio is high, fixed charges, such as depreciation, taxes, and interest, become an almost controlling element in the total cost of service. In order to meet these heavy fixed charges a relatively

low operating ratio would be required for a successful enterprise.

For the three years here included it required from \$9.00 to \$10.00 of fixed capital investment to produce a dollar of revenue. One municipal utility reported plant figures on the basis of an appraisal rather than historical cost and the difference between these two figures has been eliminated. Also, all privately owned water utilities have been excluded because, in most cases, a property and plant figure for each community served was not reported.

In general, while some improvement was evidenced by communities of 20,000 population or less in their turnover ratios in 1934 over 1933, all groups, except one, showed a higher ratio in 1935 than in either of the preceding two years. Rate reductions are probably responsible for this to the largest degree.

The highest turnover ratio found in the three years was 16.4 in 1933 for a plant in the 3,000-4,000 group. The lowest turnover ratio was 4.69 in 1934, also in a plant serving the same sized community. In general, as size of plant decreases the range in turnover ratios increases. Comparing all three years together the range between high and low ratios for the smallest plants was more than twice the range shown in either of the two groups of plants serving the largest communities.

Depreciation

Depreciation is a subject of very vital interest and concern in industries requiring large amounts of fixed capital. For this study the reported annual depreciation expense was related to total property and plant as averaged for the beginning and closing year balances. It should be recognized that in the case of a water plant much of the property is long-lived. It is well known that depreciation expense required is materially affected by the standards of maintenance, as well as by the accounting for depreciation as distinct from maintenance; also, the longer-lived the property, the lower will adequate depreciation expense be.

There is very little difference in the percentages. The range from the lowest to the highest average is only .10. In the three-year period the highest depreciation ratio found was 2.36% in a plant serving a community between 4,000 and 8,000. The lowest ratio found was .33 of 1%, also for a plant in the same sized population group. The range between high and low depreciation expense in the plants of various sizes shows no consistent relationship. In general, plants serving communities from 8,000 to 20,000 population appear to be by far the most consistent in their depreciation rates since the range is smallest in this group.

Very little change appears in the average depreciation rates from year to year except that the largest plants show a sizable increase in the average for 1935.

In the great majority of cases these depreciation rates are composite or flat depreciation rates. In other words, very few water utilities determine depreciation expense by applying to each major class of property a separate rate of depreciation. In fact, up to 1935 only

two of the Class A and Class B municipal water utilities showed in their reports that they determine depreciation expense by the use of class depreciation rates. In 1935 there were four. Of course, the most accurate method would be by the application of class rates, as determined for each individual plant in accordance with local circumstances and conditions. This is because the proportion of the total fixed capital in short-lived and long-lived plant will vary somewhat from time to time. Also, it should be borne in mind that a depreciation rate adequate for one water utility may not be adequate for another because of differences in operating conditions affecting service lives as well as in the proportions of long-lived and short-lived plant.

The percentage figures of depreciation as related to average plant investment do not include privately owned water plants. As previously mentioned, most of the privately owned water utilities do not report the separation of fixed capital for each community served. An alternative way of expressing depreciation expense is as a percentage of gross revenue. This comparison can be noted from Table III. In general, this table shows that municipally owned plants provide for depreciation a larger proportion of gross revenue than do privately owned plants. In some cases the difference is very material; in others, not so substantial. As a composite average of all plants in each group, municipally owned plants provide about twice the percentage of gross revenue for depreciation expense as do privately owned plants.

Taxes

At the present time taxes constitute an item of deep concern to municipal plant and city officials because of the pressure upon local budgets. The figures

shown for taxes in Table I are simply the ratios of annual tax accruals to the investment in property and plant as reported at the beginning of each year.

With respect to the annual tax accrual, the Uniform Classification of Accounts prescribed for water utilities by the Public Service Commission of Wisconsin provides as follows:

Municipal utilities shall accrue for the local tax which the utility would be required to pay to the General Fund were it privately owned. If the property is not assessed by the tax assessor a satisfactory assessment valuation may be obtained by applying the local assessment ratio to the book value of the property. The local tax can then be computed by applying the local-tax rate to this assessment value. By Local-Tax Rate is meant the total tax rate less that portion assessed for county and state purposes. (Uniform Classification of Accounts for Water Utilities, No. 231, "Taxes Accrued".)

The general tendency was for tax accruals to increase in each year over the preceding year. The smaller plants showed a pronounced increase in 1934, and the larger plants in 1935.

Among the communities in this study the highest tax expense accrual found was 3.51% and the lowest was .34%, both being in the 3,000-4,000 popula-

tion group. In general, the range between the lowest and highest tax accruals increased as size of plant decreased, with the exception of the smallest sized plants here considered.

In any discussion of public versus private ownership of utility property the item of taxes is a subject of controversy. As explained in the case of depreciation expense, no figures have been compiled on the ratio of taxes to property and plant for privately owned water utilities. The best available comparison between privately and municipally owned plants in the matter of taxes must be on the basis of percentage of gross revenue. This is shown in Table III. This table shows that on the average privately owned utilities pay a larger proportion of each dollar of gross revenue in taxes than do municipally owned utilities. This would be expected inasmuch as municipally owned plants do not include the county and state tax rate, their accrual being only at the local and school tax rates.

The municipally owned water utilities accrued from 13c to nearly 16c of each dollar of revenue for taxes, whereas the accrual by privately owned water utilities was on the average from 13c to 21 1/2c. However, a municipally owned water

TABLE III. PERCENTAGE DISTRIBUTION OF GROSS REVENUES TO OPERATING EXPENSES, FIXED CHARGES AND RETURN AVERAGE, 1934 AND 1935

Type and Size of Plant	No. of Plants	Operating Expenses†	Depreciation	Taxes	Return
Municipally Owned*					
20,000-68,000.....	14	37.1%	12.8%	14.7%	35.4%
8,000-20,000.....	13	40.7	13.2	15.8	30.3
4,000- 8,000.....	19	43.2	13.3	15.4	28.1
3,000- 4,000.....	13	44.7	15.0	13.1	27.2
Composite average.....	59	41.6%	13.5%	14.8%	30.1%
Privately Owned					
20,000-68,000.....	2	34.2%	9.0%	18.9%	37.9%
8,000-20,000.....	3	36.9	4.0	20.2	38.9
4,000- 8,000.....	1	65.7	4.0	21.2	9.1
3,000- 4,000.....	1	35.4	10.4	12.8	41.4
Composite Average.....	7	40.1%	6.3%	18.9%	34.7%

* Excluding those plants which purchase their water supply wholesale.

† Uncollectible bills, if any, are included with operating expenses.

plant showed the highest percentage of gross revenue accrued for taxes of any privately or publicly owned plant included in the study.

Return

The return on investment in a sense summarizes the effect of all the foregoing ratios. For the present study this has been defined as the ratio of operating income (balance of operating revenue after deduction of operating expenses, depreciation, taxes, and uncollectible bills) to the total of property and plant less reported depreciation reserve and customer contributions as averaged for the beginning and closing year balances. An allowance for working capital and materials and supplies has not been included. Consequently, the returns shown tend to be somewhat higher than the returns on a rate-base including the foregoing items.

As might be expected, the rate of return for the water plants when considered individually shows wide variations. On the average, for the three-year period, the rate of return was as follows for the size of municipal plants here considered:

Population Group	Return
20,000-68,000.....	5.73%
8,000-20,000.....	4.70
4,000-8,000.....	4.15
3,000-4,000.....	4.41

The above figures exclude plants purchasing their water supply wholesale. The effect of this exclusion is to increase the average rates of return shown although the difference is not very great. In general, the average percentage return did not change materially from 1933 to 1934, but 1935 shows a decided decrease in all groups. The return for the smaller plants decreased more in

1935 than for the larger plants. In communities from 20,000 to 68,000 the average rate of return in 1935 was about one point higher than for communities of 8,000 to 20,000, and close to 1.5 points higher than for the two groups of smaller sized plants.

On the whole, comparing privately with municipally owned plants and using the percentage of gross revenue figures shown in Table III, both classes show about the same percentage of gross revenue remaining for return on the investment although the percentage for privately owned plants is somewhat higher. This does not necessarily indicate that the percentage rates of return on the investment bear a similar relationship to each other.

Summary of General Ratios

Several observations can be made from the three-year summary in Table II. On the whole, for municipally owned water plants, the *operating* and *turnover* ratios tend to increase as size of plant decreases; the *depreciation* ratios do not appear to vary much according to plant size; the *tax* ratios, except for the largest sized population group, apparently tend to decrease with size of plant; and the percentage *return* ratios, except for the smallest plants, tend also to decrease with size of plant.

The ratios in Table III, in general, follow the same trends as pointed out for those in Table II. The percentage of gross income available for return in the case of municipally owned plants shows a more decided downward trend as the community decreases in size.

Distribution of Operating Revenues by Classes of Service

An additional analysis has been made of the percentage distribution of revenue by classes of service (Table IV). This analysis covers 1935 data and

includes a total of 47 plants, 40 municipally owned and 7 privately owned. Only plants reporting a complete breakdown of revenues by classes of service were included. Certain predominantly residential suburbs with practically no commercial or industrial sales of water were also excluded. Their inclusion would tend to distort the percentage figures and produce an average which would not be representative of a typical city or village.

TABLE IV. PERCENTAGE DISTRIBUTION OF REVENUE BY CLASSES OF SERVICE: CLASS A AND B UTILITIES REPORTING COMPLETE BREAKDOWN OF REVENUE, EXCLUDING RESIDENTIAL SUBURBS,* 1935

Class of Service	Population Group		
	20,000-68,000	8,000-20,000	3,000-8,000
Residential service.....	44.7%	43.8%	42.0%
Commercial service.....	13.5	12.2	16.3
Industrial service.....	15.1	13.3	9.7
Public fire protection.....	24.0	27.4	28.8
Miscellaneous municipal sales.....	1.7	2.6	2.3
Other revenues.....	1.0	.7	.9
Total.....	100.0%	100.0%	100.0%

* These data include both privately and municipally owned water plants.

On the average, the 47 water plants included in this part of the study received from 42 to 45% of their revenues from the residential service, from 12 to 16% from commercial service, from 10 to 15% from industrial service, and from 24 to 29% from public fire protection service. About 3% is received from other incidental and minor sources of revenue. The larger plants tend to show a higher proportion of their revenue received from industrial service than do the smaller ones.

According to this analysis the smaller plants received a larger proportion of their revenues from public fire protection service. This can be explained by the fact that in the smaller sized water-works systems a larger percentage of the investment is required to supply public fire protection as distinct from general service, with a correspondingly higher ratio of fixed charges to be allocated to, and covered by, revenue from this class of service.

Because of the rather sizable amount that this item assumes in the municipal budget, city officials are greatly interested in both its amount and the basis for the charge. The following tabulation shows charges for public fire protection service on a per-capita and also on a per-dollar basis for the year 1935 and for all communities over 3,000 inhabitants:

	Population Group		
	20,000-68,000	8,000-20,000	3,000-8,000
Per-Dollar Revenue			
Municipal.....	24.2%	26.2%	28.9%
Private.....	24.3	29.5	39.6
Per-Capita			
Municipal.....	\$1.17	\$1.40	\$1.46
Private.....	1.37	2.18	2.65

The portion of revenue received from public fire protection service, on both bases of measurement, tends to increase as size of plant decreases. In general, privately owned plants receive a larger portion of their revenue from this class of service than do municipally owned plants.

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Rural Electrification Authorities and Electric Cooperatives: State Legislation Analyzed

By D. L. MARLETT and W. M. STRICKLER*

PARALLELING the large volume of state legislation enacted during the past six years to revamp public utility commissions,¹ a correspondingly large volume of laws has dealt with public corporations and non-profit or cooperative associations in the electric utility industry. The magnitude of this latter body of state laws is traceable in no small part to the influence of the public works program and national power policy of the Federal Government, which is seeking to obtain its objectives by promotion of municipal utilities, power districts, rural electrification authorities, and electric cooperative associations². Many bills designed by federal agencies and recommended to governors of the various states for passage were enacted into law with little or no change from the recommended form.

Only state legislation concerning rural electrification authorities (referred to hereafter as "authorities") and non-profit electric membership corporations ("cooperatives") will be discussed here. Cooperatives can hardly be identified categorically either as public or as private corporations, for they are founded neither upon ownership by a body politic nor upon private ownership under the profit motive, but upon a philosophy

of voluntary cooperation. Nevertheless, they are closely related, in purposes and powers, to the rural electrification authorities. For purposes of this study, therefore, state laws concerning these two types of organizations may logically be considered as complementary.

State acts providing for cooperatives and rural electrification authorities, as well as for power districts which will be discussed in a later article, illustrate methods designed for encouraging fullest possible use of electrical energy in rural areas. These enactments deserve careful analysis for they raise many important questions which affect public service industries, state commissions, consumers, and investors. Such questions are all the more significant because the movement for electrification of rural areas is daily becoming more widespread, with public interest being crystallized by the recent formation of a 10-year program under the federal Rural Electrification Administration (R.E.A.)³ and the appointment by President Roosevelt of a special committee to study the development of cooperatives in Europe.

Most of the actual legislative activity on authorities and cooperatives has occurred during the past two years, although all legislation on the subject

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¹ See: "Public Utility Legislation in the Depression: I. State Laws Extending and Strengthening Commission Jurisdiction," 11 *Journal of Land & Public Utility Economics* 173-186 (May, 1935); "II. Reorganization and Financing of Commissions," *Ibid.* 290-301 (August,

1935); and "III. State Laws of 1935," *Ibid.* 390-399 (November, 1935).

² In December, 1934 the governors of the various states, upon receipt of a letter from the President, requested the assistance of the Legal Division of the P.W.A. in drafting legislation along lines suggested by the President.

³ See Nicholson, Vincent D., "The Rural Electrification Act of 1936," pp. 317-318 in this issue of the *Journal*.

passed from 1931 to date is included in the present analysis.

I. State Rural Electrification Authorities

In the past six years nine states have enacted legislation concerning rural electrification authorities.⁴ Of these states, six (Alabama, New Mexico, Mississippi, Montana, South Carolina,⁵ and Tennessee) have adopted with modifications the act recommended by the Federal Government. The authorities in these states may be designated "strong." The other three states (North Carolina, New Hampshire, and Vermont) have created authorities which may be called advisory or promotional, although certain powers exercised by them are unique.⁶

⁴ Alabama, Acts 1935, No. 47, amended by No. 303; Mississippi, Laws 1936, H. B. No. 575, approved March 26, 1936; Montana, Laws 1935, c. 98; New Hampshire, Laws 1935, c. 135; New Mexico, Laws 1935, c. 100; North Carolina, Public Laws 1935, c. 288; South Carolina, Acts 1935, No. 65 and also see Acts 1933, No. 275 and Acts 1934, No. 887; Tennessee, Acts 1935 (Extra Session), c. 3; Vermont, Laws 1935, No. 157.

⁵ South Carolina has experienced an interesting development in rural electrification. That State not only enacted one of the strong rural electrification bills in 1935, but in 1933 adopted the earliest of the rural electrification measures passed during the period 1931-6; and in 1934 it created the Public Service Authority. The 1933 Act was intended primarily to develop highway lighting "and to obtain, as incidental thereto and in connection therewith, service of light, heat and power for industries and homes of the farmers of the State under the most economical conditions." To accomplish this the Highway Department was empowered to borrow money and pledge its revenues in order to provide transmission facilities for rural electrification, to require public utilities in the State to sell current to the Department at its demand, and to serve individual customers at actual cost plus an amortization charge of not less than 5% (under approval of the State Commission). The Public Service Authority, created in 1934 as a board of seven directors, was given similar financial powers but was granted broader power to acquire, construct, and operate systems either for generation or distribution of electric energy, and to sell energy to anyone. Thus the electrification authority set up by the 1935 Act becomes a part of an organization for rural electrification in South Carolina not found in other states.

1. "Strong" Authorities

"Strong" rural electrification authorities are so designated because of the breadth of their statutory powers. Of the six states in this group four are in the South, within the sphere of T.V.A. influence, and these have created authorities with the broadest powers.⁷

The strong authorities⁸ are public corporations created by the acts in perpetuity⁹ and are agencies of the state.¹⁰ In general, a majority of a board of directors of three members, appointed by the governor, possess and exercise the powers of the authority.¹¹

⁶ The mere fact that a particular state has not created a rural electrification authority by recent legislation does not mean that the state has not devoted special attention to rural electric service. In Illinois, for example, a special Rural Electrification Committee was created by resolution of the Illinois Commerce Commission (February 4, 1936) to handle all rural electric matters coming before the commission. (Illinois Commerce Commission, *Annual Report*, July 1, 1934-June 30, 1935, p. 27). Governor Horner later appointed a State Rural Electrification Committee to cooperate with all agencies interested in the promotion of rural electric lines. Similarly, other states have established special rural electrification bodies without the passage of legislation.

⁷ Alabama, Mississippi, South Carolina, Tennessee.

⁸ In Montana the State Water Conservation Board created in 1933 (Ex. Sess., c. 35) is the administering body.

⁹ The Montana Board is not declared to be a corporation, although it "shall be regarded as performing a governmental function" and exercises the same powers as the other authorities.

¹⁰ Alabama amended this original provision to provide means for creation of authorities which are not to be state agencies (instead of creating in the Act one state agency).

¹¹ The members of the board who are to hold no other public office are generally entitled to no compensation except reimbursement of expenses. The usual term of office is three years, with staggered initial terms, and a member may be removed by the governor after receiving charges against him and having an opportunity to be heard. Directors are generally eligible for reappointment. In most states the board is to choose from its number a president and secretary. Of course, there are some variations from these provisions among the states.

Purpose of the Authorities

The "corporate purpose" of the authorities as defined in the acts is:

"... to encourage and promote the fullest possible use of energy by all the inhabitants of the state by rendering service to said inhabitants, to whom energy is not available or, in the opinion of the board, is not available at reasonable rates."

The corporate purpose as thus set forth is obviously very broad and can exert a potent influence upon rates for rural electric service.

Powers of the Authorities

In all states (except Montana) the acts contain a general grant to the authority of "all powers necessary or requisite for the accomplishment of its corporate purpose." The acts in all states bestow specific powers which are not to limit the general grant. In addition to the usual corporate capacities (to sue and be sued, have a seal, accept gifts or grants, and execute instruments) these corporations possess powers which raise serious issues and have many implications.

Operation of Systems. The broadest issue, of course, is that of public ownership, inherent in the very nature of the authorities, for they are enabled "to render service to the inhabitants of the state and, by contract or contracts with any person, federal agency or municipal

ity or by its own employees, to acquire, own, operate, maintain and improve a system or systems."¹² The wide scope of this power is even more evident in light of the definitions of terms contained in the acts and presented in footnote 12. It is particularly significant to note that the exercise of these powers is not restricted to rural areas only (cf. definitions, footnote 12).

Mississippi chose to go even farther by asserting that:

"To the extent necessary in the judgment of the board to make effective the powers conferred by this Act, the Authority shall have the power to acquire, own, operate, maintain and/or improve a generating and/or transmission system or systems outside the State of Mississippi."

Apparently, Tennessee, too, was influenced by a nearby federal power project when it defined "energy" to include any and all electric energy no matter how "or where" generated or produced.¹³ In view of the definitions of the terms it is doubtful whether an authority (except in Mississippi) can operate outside the boundaries of its own state, but by their silence the acts are not entirely clear on this question.

The privilege of constructing or placing any part of an electric system along or across public ways and lands is also granted to the authorities. In most states this privilege may be exercised "without obtaining any franchise or

¹² Definitions of these terms in the acts are: *Service* shall mean and include the sale or other disposition of energy at the lowest cost consistent with sound economy, public advantage, and the prudent conduct of the business of the authority. *Person or Inhabitant* shall mean and include natural persons, firms, associations, corporations, business trusts, partnerships, and bodies politic. *Federal Agency* shall mean and include the United States of America, the President of the United States of America, the Federal Emergency Administrator of Public Works, and any and all other authorities, agencies, and instrumentalities of the United States of America, heretofore or hereafter created. (Some of the southern states specifically named TVA and REA.) *Municipality* shall

mean any city, village, or incorporated town of the state. (*County* was included in some states.) *Acquire* shall mean and include construct, acquire by purchase, lease, devise, gift or the exercise of the right of eminent domain in the manner now or hereafter provided by law, or other mode of acquisition. *Improve* shall mean and include construct, reconstruct, improve, repair, extend, enlarge, or alter. *System* shall mean and include any plant, works, system, facilities, or properties, together with all parts thereof and appurtenances thereto, used or useful in connection with the generation, production, transmission, or distribution of energy.

¹³ Except for the "or where" the definition was the same in other states.

permit therefor,"¹⁴ but in Mississippi and Tennessee "the governing body of such political subdivision shall consent to such use." This power, especially in the states which require of the authority neither franchise nor permits for use of public ways, might well give rise to serious controversies over franchise privileges and create problems of interference.

In all states the power of eminent domain is conferred upon the authorities,¹⁵ but in Mississippi, South Carolina, and Tennessee additional sweeping provisions give promise of interesting legal battles. In those states the authorities may exercise the power of eminent domain to acquire property for their corporate purposes "whether or not the same is owned or held for public use by corporations, associations or persons having the power of eminent domain, or otherwise held or used for public purposes . . ."¹⁶

For the purpose of determining the economic soundness of the acquisition and operation of these electric utility systems, the authorities may cause surveys to be made of areas throughout the state and may make plans and estimates of the cost of such systems.

Bonds of the Authorities. One of the

¹⁴ However, the authorities must restore the street or highway to its former condition "and shall not use the same in a manner to unnecessarily impair its usefulness."

¹⁵ See definition of "acquire," footnote 12.

¹⁶ Mississippi and Tennessee give immediate right of possession in condemnation proceedings, subject to deposits by the authority of an amount to insure just compensation, and subject in part to the discretion of the judge.

¹⁷ This is supplemented by power "to acquire, hold and dispose of property . . . subject to mortgages or other liens or otherwise and to pay therefor in cash or on credit, and to secure and procure payment of all or any part of the purchase price thereof on such terms and conditions as the board shall determine."

¹⁸ The bonds of the authorities are to be authorized by the resolution of the board; may be issued in one or more series at public or private sale; may mature in not to exceed 40 years; are to bear interest and be

specific grants of power to the authorities is "to borrow money and issue negotiable bonds and to provide for the rights of the holders thereof."¹⁷ Several succeeding sections of the acts prescribe regulations for these bonds of authorities, for their broad powers are impotent without financial backing. In general, an authority is authorized to issue bonds "in anticipation of its revenues, for any corporate purpose," either for money or property (at its value as conclusively determined by the board). The bonds are not to constitute a debt of the state but are to be payable "from the revenues pledged to the payment thereof;" and no bondholders "shall ever have the right to compel any exercise of taxing power of the State or of any political subdivision thereof to pay said bonds or the interest thereon."¹⁸

In connection with the issuance of bonds an authority has power:

- (1) to pledge all or any part of its revenues;¹⁹
- (2) to vest in a trustee the right to enforce any covenant; (3) to make covenants and do all things "as may be necessary or convenient or desirable in order to secure its bonds or which, in the absolute discretion of the board, tend to make the bonds more marketable, notwithstanding that such covenants, acts and things may restrict or interfere with the exercise of the powers herein granted . . ."

sold on a basis not to exceed 6% per annum, interest payable semi-annually; and may be subject to other conditions as the resolution may provide. Bonds may be repurchased at not to exceed par and accrued interest, but must then be cancelled. The validity of these bonds is not to be dependent upon a subsequent change in the officers of the authority or upon the validity or regularity of any proceedings relating to acquisition or improvement of electric systems for which the bonds are issued. Except for the general power to issue bonds "from time to time" for any corporate purpose, no provisions are made in the acts for refunding.

¹⁹ The Mississippi Act contains an additional clause in the specific grant of powers as follows: "To pledge all and any part of its revenues and to mortgage or otherwise encumber all or any part of its property for the purpose of securing the payment of the principal and interest on any of its bonds or other obligations."

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The third clause gives sweeping discretionary control to the board, for what will "tend to make the bonds more marketable" is capable of many interpretations and depends largely upon the purchaser—who might well be the Federal Government. In Alabama, however, before issuing any bonds the authority must, by petition, obtain consent of the Public Works Board (or Public Service Commission, if the Board is not in existence), which consent is to be given only if the bond issue "serves some public need, and is in the public interest."

The states, furthermore, pledge in the acts that they "will not limit or alter the rights and powers hereby vested in the authority . . . to fulfill the terms of any agreements made with the holders of such bonds, or in any way impair the rights and remedies of the holders of such bonds . . ." Bondholders are also given the right by mandamus or other suit to enforce their covenants with the authority.²⁰ In effect, these provisions guarantee the existence of the authorities with their powers and with their contractual arrangements, as made in their own absolute discretion, as long as their bonds are outstanding.

Relations with Federal and Municipal Agencies. Several of the specific powers bestowed upon the authorities contemplate contractual relations with federal and municipal agencies. The powers previously mentioned—namely, to contract with such agencies for acquisition and operation of electric utility systems and to accept from them gifts of money or property—as well as implications of some of the financial provisions, clearly pave the way for assumption by the Federal Government of regulatory controls over these agencies. This conclusion

is made clearer by the more definite South Carolina act which enabled the authority "to subscribe to and comply with any rules or regulations made by any Federal Agency with regard to any grants or loans from any Federal Agency." Still other specific contractual clauses are significant. In all states the right to execute contracts includes:

"(a) contracts with any person, federal agency, or municipality for the purchase or sale of energy at wholesale, and (b) contracts with any person, federal agency, or municipality for the management and conduct of the business of the authority or any part thereof."

In Montana, South Carolina and Tennessee the qualifying words "at wholesale" in part (a) were omitted.

Obviously, these powers provide potential markets for electrical energy generated by such federal power projects as the T.V.A. Apparently, part (b) of the clause goes even farther and provides a vehicle whereby the Federal Government, for example, may manage and operate electric utility systems, with perhaps the authorities as intermediaries. Additional support for this interpretation is found in the Tennessee and Mississippi acts, which added a third clause about contracts for acquisition of electric systems and then stated:

"And in connection with any such contract to stipulate and agree to such covenants, terms and conditions as the board may deem appropriate, including, but without limitations, covenants, terms and conditions with respect to the resale rates, financial and accounting methods, services, operation and maintenance practices, and the manner of disposing of the revenues of the system or systems conducted and operated by the Authority."

State authorities can thus function as producing wholesalers and/or retailers or as middlemen between the

²⁰ Tennessee and Mississippi added a section to their acts regulating the handling and disposition of monies of the authority.

producing activities of federal agencies and retail activities of other organizations; and in those capacities they can be in harmony with federal utility policies.

Relations with State Commissions. One of the specific endowments of power to the authorities raises a serious question as to their relations with state commissions. They are empowered:

"To have complete control and supervision of the system or systems and to make such rules and regulations governing the rendering of service thereby as, in the judgment of the board, may be just and equitable;"

and

"To fix, maintain and collect rates and charges for service."

Since these powers are not qualified, and since the definitions in the acts are so broad,²¹ it is not clear to what extent the scope of this jurisdiction may create conflicts with established regulatory agencies.

This uncertainty is even more manifest because of the authorities' wide contractual powers, discussed above. Except in the case of Tennessee, which by separate act specifically exempts public corporations from commission control,²² the relation of the authorities to the state commissions is not stipulated. In the absence of definite authorization in the acts creating state regulatory commissions, the latter are probably without jurisdiction over these public authorities on such matters as certificates of convenience and necessity, rates, service, or securities. Therefore, the powers of the authorities to contract with federal and municipal agencies can result in vesting regulatory power over such municipal and other agencies

in itself or in giving that power (including regulation of itself) to a federal agency.

Taxation. The acts are silent on the question of taxation except in the case of Mississippi, which expressly provided:

"The Authority and its property shall be liable for taxes, and taxed and assessed in the same manner and to the same extent as a privately owned utility."

Rates. The authority shall

"prescribe and collect reasonable rates, fees or charges for the services, facilities and commodities made available by it, and shall revise such rates, fees or charges from time to time whenever necessary so that the Authority shall be and always remain self-supporting, and shall not require appropriations by the State to enable it to carry out its purpose."

Further clauses declare that the rates shall be sufficient to produce enough revenue to pay when due all bonds and interest, including reserves therefor, and to provide for all expenses of operation, maintenance, or improvement of the system, including reserves therefor. Mississippi and Tennessee added that any surplus thereafter remaining "shall be devoted solely to the reduction of rates." The authorities shall not be operated for gain or profit (except in Montana, where this clause was omitted) or primarily as a source of revenue to the state.

These mandates place a broad financial burden upon the authorities. Although there is no specific mention of depreciation, the rates are to produce revenues sufficient to maintain the system and cover all expenses and also to provide capital additions in the form of debt retirements (presumably over a

energy," and "energy" includes "any and all electric energy no matter how generated or produced." (See footnotes 12 and 13.)

²² Tennessee, Acts 1935, c. 42.

²¹ "System" is so defined in the act as to include "any" plant or facilities used or useful in the "generation, production, transmission or distribution of

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40-year period) or improvement of the systems. Even though the authorities may be exempt from taxation, the provisions on rates may be found difficult to fulfill. Since these stipulations are somewhat ambiguous, however, they may be subject to a more liberal interpretation than here indicated.

Further with respect to rates, the possible relations of the authorities with federal and municipal agencies should be recalled, for such relations may exert an important influence. It should also be remembered that the rates of such authorities are not to be under state commission regulation and that the state pledges to and agrees with the bondholders not to "limit or alter" the rights and powers vested in the authorities to fix and collect rates and to fulfill any covenants with the bondholders.

2. Advisory or Promotional Authorities

Three states (New Hampshire, North Carolina, and Vermont) have passed laws establishing advisory or promotional rural electrification agencies. In Vermont a board is created and in New Hampshire the governor and council (or agents) are authorized to cooperate and contract on behalf of the state with the Federal Government and its agencies for the purpose of promoting the construction, maintenance and operation of rural electric lines in areas "not then being furnished electricity" (Vermont) or "not adequately furnished with electricity" (New Hampshire). Both agencies are authorized to accept grants, but with the approval of the governor in Vermont.

The Vermont Act, however, goes much farther than that of New Hampshire, for the board can accept loans and assistance, as well as grants, from the state or Federal Government and can make loans at low rates of interest

"to persons for wiring their buildings and premises and for acquiring appliances, utensils and other devices so as to be fully equipped to receive and use electricity". . . .

and

"to private corporations . . . and municipal corporations operating an electric system, for the construction and maintenance of rural electric lines . . ."

The Vermont Board also is commissioned "to promote the organization of corporations to build, maintain and operate rural electric lines . . ." The act then provides for non-profit membership corporations to receive benefits under it, and invests the Board with the following powers:

"The said board shall have exclusive jurisdiction of all extensions of rural electric lines constructed under the provisions of this act and said board shall have exclusive jurisdiction of all corporations organized under the provisions of this act and receiving benefits thereunder."

Clearly, the Vermont board has rather wide promotional powers and jurisdiction over rural extensions for electric service which may, in the absence of cooperation with other state agencies, create difficult regulatory problems.

The North Carolina authority, created "to secure electrical service for the rural districts of the State where service is not now being rendered," also has jurisdiction over cooperatives, but in that State the relation of the authority to the state commission is specifically described. The authority has power:

"To investigate all applications from communities for the formation of electric membership corporations and determine and pass upon the question of granting the authority to form such corporations."

However, the authority is to have no control over rates of the cooperatives or over extension of lines by power companies. Such jurisdiction remains in the

Utilities Commission. On these matters, however, the authority has the right of suggestion and petition to the Utilities Commission, and the additional liberty to contact the power companies and other agencies contiguous to areas desiring service in order to arrange for extensions which the companies or agencies can finance themselves.

It appears that the North Carolina authority was not authorized to borrow and lend money itself, but it does have the right and authority to act as an agent for cooperatives in securing loans or grants for them from any agency of the Federal Government. It also was granted the power of eminent domain:

"for the purpose of condemning rights of way for the erection of transmission and distribution lines, either in its own name, or in its own name on behalf of the electric membership corporations . . ."

To execute these powers the authority may investigate all applications for service from communities unserved or inadequately served, including estimates of extension costs and service charges necessary to make the extensions self-liquidating.

II. ¹Cooperatives

Eight states (Alabama, Indiana, Maine, Mississippi, North Carolina, Tennessee, Vermont, Virginia)²³ have enacted legislation during the period 1931-1936 providing means for organization of cooperatives. The following discussion is concerned first with the comprehensive laws passed in the six states which have followed closely the

recommendations of the Federal Government and then with the remaining two acts (Maine and Vermont).

In general, cooperatives are corporations organized on a non-profit basis and may be of two types: membership cooperatives or stock cooperatives.²⁴ Regardless of type, each member is entitled to only one vote in the management of the organization.

Close similarity exists in the methods of formation provided in the six state acts. Upon application of three or more persons in Alabama, Mississippi, North Carolina, and Tennessee, five or more in Virginia, and 11 or more in Indiana,²⁵ a cooperative may be formed. In addition, the North Carolina act provides that the application must be made by persons in a community "not served, or inadequately served" to the rural electrification authority, which upon application of as many as five members, shall make a survey of the territory and shall permit the formation of the cooperative if the proposal is feasible.

There must be filed with the secretary of state a certificate of incorporation, in which are the usual provisions relating to name of the corporation, description of territory, and terms for admission of new members. Mississippi alone included a definite limitation on corporate duration, and that is for 99 years. The powers of a cooperative are usually vested in and exercised by a majority of a board of directors, which is elected annually, is entitled to no compensa-

tives, including those formed "to construct or operate telephone or electric transmission lines."

²⁴ Virginia makes specific provision to limit liability of members either to the unpaid portion of membership fee or to subscription of capital stock and any unpaid bills. The law states that membership fees are not to exceed \$10. (This provision is in other states, while some states permit the board to fix fees.)

²⁵ See footnote 29.

²³ Alabama, Acts 1935, No. 45, amended by No. 168; Indiana, Acts 1935, c. 175; Maine, Laws 1931, c. 230; Mississippi, Laws 1936, House Bill No. 578, approved March 26, 1936; North Carolina, Laws, 1935, c. 291; Tennessee, Acts 1935 (Extra Session), c. 32; Vermont, Laws 1935, No. 157; Virginia, Acts 1936, Senate Bill 251, approved March 30, 1936.

In addition, Iowa (Acts 1935, c. 94) adopted a new act applicable to all newly organized coopera-

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tion except reimbursement of expenses, and in general is granted "power to do all things necessary or convenient in conducting the business." North Carolina was the only state to declare cooperatives formed under the act to be a public agency which "shall have within its limits for which it was formed the same rights as any other political subdivision of the state."²⁶

Purposes of Formation

The objectives of the non-profit electric membership corporation acts²⁷ adopted in six states indicate the necessary completeness of powers that must be granted for attainment of the purpose for which they are authorized—namely, to

"... form a corporation not organized for pecuniary profit for the purpose of promoting and encouraging the fullest possible use of electric energy in the state by making electric energy available to inhabitants of the state at the lowest cost consistent with sound economy and prudent management ..."

What constitutes "sound economy and prudent management" is not defined.

Distinguished from the general purpose is the defined corporate purpose of a cooperative which is "to render service to its members only;" but in four states (Alabama, Mississippi, Virginia, and Tennessee) cooperatives may serve existing non-members of an acquired electric system providing the number does not exceed 49% of the total persons served.

Powers of Cooperatives

With such broad declarations of purpose it is natural to expect that the

powers delegated to cooperatives would allow relative freedom of enterprise. Doubtless to make as remote as possible the chances of restricted operations or legal entanglements, the framers set up a broad grant of power:

"Each corporation formed under this Act is hereby vested with all power necessary or requisite for the accomplishment of its corporate purpose and capable of being delegated by the legislature."

Since the cooperatives are usually private corporations (even though a non-profit type) the question arises whether it is socially or economically desirable to make such a broad concession of powers to them as is made to public corporations like the rural electrification authorities, which are agencies of the states' sovereign police power. This question is especially pertinent because of the comprehensiveness of the corporate purposes. As in the case of the electrification authorities, a specific endowment of powers accompanies, but does not limit, the general grant.

Operation of Systems. In all instances authorization is given "to acquire, own, operate, maintain and improve a system or systems."²⁸ Indiana and North Carolina expressly restricted cooperatives' operations to rural sections of the State, but that term is not defined.

Mississippi, apparently influenced by T.V.A. policies, added a special provision enabling cooperatives to acquire a system outside the State. Alabama had previously made possible the exercise of this power with an additional section in its act to permit any corpora-

Membership Corporation Act"; Virginia, "Electric Cooperatives Act"; Mississippi, "Electric Power Association Act."

²⁸ Definitions in these acts are substantially the same as in the rural electrification authority acts (See footnote 12). The North Carolina Act in defining "acquire", however, omits the power to "construct." This may or may not have been a deliberate omission.

²⁶ As previously mentioned, however, North Carolina cooperatives are to be under jurisdiction of the state rural electrification authority and state utilities commission (p. 293 above).

²⁷ The acts are identified by various titles: in Alabama, North Carolina, and Tennessee: "Electric Membership Corporation Act"; Indiana, "Rural Electric

tion or association, organized under generally similar cooperative laws of another state, to operate within its territory.

In conjunction with the operation of their systems, cooperatives under the Mississippi and Virginia acts were expressly authorized to assist their members, by loans or otherwise, in the purchase and installation of electrical appliances, wiring, machinery, and equipment. Such assistance was also authorized for plumbing equipment in Mississippi.

Consolidations and Extensions of Territory. Under the acts any two or more cooperatives may consolidate for the operation of their systems, except in North Carolina, which omitted this provision. The Indiana act qualifies this privilege by requiring cooperatives proposing to consolidate to be operating in "contiguous territory."

The right to operate electric systems is further enlarged in most states by permitting any cooperative originally formed under the act or a cooperative resulting from consolidation to extend its territory. Indiana, North Carolina, and Virginia omitted this provision and Indiana expressly denied any extension of territory to be permitted by amendment of the cooperative's certificate of incorporation, which must, at the time the general or local district cooperative is formed, specify the territory in which the cooperative is to operate.²⁹ North Carolina and Virginia do not have this

special proviso about territory, but the state commissions in those states, as well as in Indiana, will have continuous jurisdiction over cooperatives.³⁰

Powers of Right-of-Way and Eminent Domain. The power to obtain or occupy rights-of-way along any street or public highway or over public lands is given and may be exercised without any franchise or permit from the governing body owning such public property, except in Mississippi and Tennessee, which expressly require consent. In those states which do not retain some form of jurisdiction over extensions by cooperatives, this freedom creates serious possibilities of interference with other utility operations, such as the problem of inductive interference in telephone lines³¹ or clashes with other electric companies.

The power of eminent domain is also bestowed upon cooperatives (in Mississippi and North Carolina, that clause was omitted from the definition of "acquire")³² and raises the question as to whether the exercise of such power dedicates the operation of these organizations to the public in such manner as to bring them within the scope of state commission control, in the absence of specific statutory exemption.³³ Another possible problem is contained in the additional clause of the Tennessee act which broadly empowers cooperatives to exercise eminent domain over property already owned or dedicated to public use by other corporations which likewise are endowed with eminent domain power. Even in

²⁹ General district cooperatives (to be organized either by groups who are $\frac{1}{2}$ of the heads of farm families in the territory or by directors of a large state association of agricultural producers with members who are a corporation in $\frac{1}{10}$ of the territory) have the right to serve at wholesale (including service to local district cooperatives) or retail in those counties named in the certificate and not a part of another general district cooperative; local district cooperatives are to be formed by at least $\frac{1}{4}$ of the rural residents in the territory described in the articles of incorporation.

³⁰ See section on "Relations with State Bodies," p. 298.

³¹ See Wopat, J. W., "Inductive Interference from Power Lines," *Telephony*, January 4, 1936, p. 9.

³² See definition of "acquire", footnote 12. In addition, Virginia has a specific grant of power of eminent domain.

³³ See section on "Relations with State Bodies," p. 298.

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the absence of that power (as in Mississippi), it would seem possible for rural electrification authorities in Tennessee and Mississippi to exercise that superiority of eminent domain³⁴ to acquire electric systems which they could then, by exercise of their unrestricted contractual powers, sell or lease to cooperatives for operation.

Issuance of Bonds. Permission is given to cooperatives in all cases to issue bonds from time to time in anticipation of revenues.³⁵

The board of directors in all instances may, within the limits of the respective corporation laws, make covenants in order to secure its obligations or which "in the absolute discretion of the board, tend to make the obligations more marketable, notwithstanding that such covenants, agreements, acts and things may constitute limitations on the exercise of the powers herein granted." These are broad powers which will be discussed further in the section on relations with federal and municipal bodies.

Mississippi and Tennessee sanctioned more freedom in their acts:

"Such bonds may be issued for money or property, at public or private sale, for such price or prices as the Board shall determine, provided that the interest cost to maturity of the property (at its value as determined by such Board, the determination of which shall be conclusive), or money received for any issue of said bonds, shall not exceed six per centum per annum, payable semi-annually."

Although these provisions authorizing the board to determine property values conclusively and to contract so freely are in all rural electrification authority

acts, they are more sweeping and serious ones for cooperatives to exercise, particularly since the trend of the past few years is toward more stringent public control over financial transactions of corporations.

Some statutory limitation, however, is provided over transactions involving property. In all states a cooperative may "sell, mortgage, lease or otherwise encumber or dispose of any of its property," other than merchandise, but only when authorized by a majority ($\frac{2}{3}$ in Virginia) of its members and (in most states) by holders of 75% of its bonds. All states but Indiana excluded from this requirement property which, "in the judgment of the board", is neither necessary nor useful in the cooperative's system and (in some states) which does not exceed in any one year 10% in value of all the cooperative's property.

In four of the states, however, some form of state control over financial transactions is retained: by the state commissions in Indiana and Virginia; by the State Rural Electrification Authority and Utilities Commission in North Carolina; and in Alabama by the Public Works Board (or in its absence, by the Public Service Commission), which must consent to bond issues of cooperatives.

Relations with Federal and Municipal Bodies. The activity of the Federal Government in setting up several agencies for manufacture and distribution of power and for lending money for public purposes, as illustrated by T.V.A., P.W.A., and R.E.A., has probably prompted the framers of these acts to

³⁴ See p. 290.

³⁵ Such bonds are not to be sold at less than par and accrued interest, are to be payable in not to exceed 40 years, and the nominal interest rate is not to exceed 6% per annum (5% in Indiana). The board is authorized by resolution to determine the form of the bond (whether coupon or registered), terms of re-

demption, registration privilege, and other matters subject, of course, to the limitations stated above. Specific license is given in all acts for the corporation to repurchase any of its bonds at a price not exceeding the principal and accrued interest. As in the authorities acts, Mississippi and Tennessee inserted regulations governing the handling of money of cooperatives.

include in the specific grants of power provisions necessary to enable cooperatives to participate freely in these federal programs. As in the rural electrification authority acts, there is much evidence of a trend toward a contractual form of control over cooperatives, except perhaps in those states which subject cooperatives to commission control, as in North Carolina (where also the electrification authority is the agent of cooperatives which obtain loans or grants from the Federal Government), Virginia (where the broad contractual powers were omitted), and Indiana (where the state commission's approval of contracts is required).

Cooperatives usually are authorized to make any and all contracts "necessary or convenient" for full exercise of their powers including, but not limited to, contracts with any person, municipality,³⁶ or federal agency for purchase or sale of energy,³⁷ or for management of the business, with Mississippi and Tennessee again expressly permitting cooperatives to contract for regulation of resale rates, financial and accounting methods, services, operation and maintenance practices, and the manner of disposing of revenues. Also included are powers to accept grants or gifts from such agencies and to make covenants with bondholders "in the absolute discretion of the board", even though the cooperatives' own powers are thereby curtailed. Taken together, these provisions obviously permit cooperatives ample leeway to enter into contractual forms of regulation.

As for the privilege of contracting with municipalities for purchase and sale of electric power, a solution may

herein be found to overcome the restrictions in some states on municipal extensions outside corporate city limits.³⁸ The following quotation from a recent article by Morris L. Cooke, Administrator of R.E.A., illustrates these restrictions:

"Occasionally municipalities planning to offer rural service may encounter legal obstructions. Two restrictions are fairly common, but . . . are by no means insuperable. A city may not be empowered to provide electric service outside its corporate limits, or its activities beyond the corporate limits may be limited in range or volume. There may be a constitutional limitation upon the amount or type of indebtedness which the city may incur."³⁹

With a grant in the acts of contractual power between cooperatives and municipalities, a solution is offered to the obstructions encountered by the latter bodies, for they may form cooperatives to serve beyond municipal limits and sell electrical energy to these cooperatives.

Relations with State Bodies. With the increased attention to the cooperative form of organization, the question of its relations with the state regulatory commission arises. If such relations are established by statute, they usually include such matters as rates, service, or security issues.

In four of the six states included in this group, specific statutory provisions apparently determine the relation of the cooperatives to the state commission, and in the fifth state (Mississippi) there is no commission authority to assume jurisdiction over them. The sixth state (Alabama) has no clear-cut provision⁴⁰ except on the matter of cooperatives'

extensions, see Federal Power Commission, *Electric Rate Survey, Rate Series No. 6*, p. 8.

³⁶ "Municipalities and the REA," 25 *National Municipal Review* 262 (May, 1936).

³⁷ R. E. A.'s *Rural Electrification News* for July, (Footnote 40 continued on page 299)

³⁸ North Carolina omitted "municipality" from this contractual power.

³⁹ Indiana authorized only the purchase of energy "needed by the corporation to supply its members."

⁴⁰ For a summary of restrictions upon municipal

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bond issues, which must be consented to by the Public Works Board (or by the Public Service Commission). In Tennessee cooperatives are exempt by statute from state commission control.⁴¹

By definite provisions in the acts, cooperatives in Indiana and Virginia are to be under control of the state commission in the same manner as other public utilities; and the Virginia act provides in addition that upon application of five or more persons the commission can require rural line extensions, if proper revenue is guaranteed. North Carolina, however, has provided for two types of controls. The organization of a cooperative must be approved by the State Rural Electrification Authority, and this authority is to act as the agent of cooperatives which apply for loans or grants from any agency of the Federal Government.⁴² The authority also has final ruling on questions involving public right-of-way and eminent domain. The North Carolina Utilities Commission, however, is to have jurisdiction over rates, service charges, and line extensions,⁴³ but the electrification authority has the right of suggestion and petition to the Commission on these matters.

Although most of the acts included in this section specify the relation of cooperatives to the state commissions, it may be of interest to raise questions concerning commission jurisdiction in the absence of such definite stipulations. Whether public utility commission jurisdiction can be extended over cooperatives without express statutory provision is by no means settled. It

appears that the controlling standard by which the courts decide the question of the public utility status of a cooperative is the extent to which the business of the company in question is dedicated to a public use.⁴⁴

"Cooperatives may or may not dedicate their facilities to a public use. If their formation and operation is with the view of providing service for the public, they are subject to Commission control. The act of obtaining a franchise or the exercise of the power of eminent domain may constitute such a dedication to the public. The act of serving a limited number of non-members incidentally, however, does not constitute such a dedication."

Several provisions in the cooperative acts under review would undoubtedly make them subject to judicial test.

While usually no statutory provision requires cooperatives to obtain a franchise or permit for use of public rights-of-way, most states do give cooperatives power of eminent domain. In the light of the quotation above on the legal status of cooperatives, will the exercise of this eminent domain power constitute a dedication to the public of the business of cooperatives, thereby placing them under state commission control? A further question is presented. In Alabama, Mississippi, Virginia, and Tennessee a cooperative may acquire any electric facilities already dedicated to a public use and continue to serve the people being served at the time of acquisition, providing:

"In no event shall the number of such non-members served exceed forty-nine per centum (49%) of the total number of persons served by the corporation."

to be "non-utilities" within the meaning of that exemption.

⁴² See pp. 293-4.

⁴³ This jurisdiction is conferred in the State Rural Electrification Authority Act.

⁴⁴ R. E. A., "The Jurisdiction of Public Service Commissions over Cooperatives," p. 26.

(Footnote 40 continued from page 298)

1936 (p. 25) reports a ruling by the Alabama attorney-general that cooperatives do not have to apply for certificates of convenience and necessity to construct and operate rural lines.

⁴¹ Tennessee, Acts 1935, c. 42 declared certain "non-utilities" to be exempt from commission regulation and the cooperatives act expressly declares cooperatives

Would the exercise of this power be interpreted by the courts as providing service to the public, thereby placing cooperatives under commission jurisdiction? Or does the 49% limitation on existing non-members remove the facilities from that dedication, thus exempting cooperatives from state regulation? Or will the courts even go so far as to consider the entire cooperative membership device as a mere subterfuge designed to avoid commission regulation of what essentially is a public business?

Taxation. Two states inserted sections in their acts concerning taxation of cooperatives. In North Carolina a cooperative is declared to be an agency of the state and its property used exclusively for the purpose of said corporation

"shall be held in the same manner and subject to the same taxes and assessments as property owned by any county or municipality . . ."

This apparently amounts to exemption from some taxes to which public utility companies are subject. Mississippi, however, pursues an opposite policy, in that it declared cooperatives to be liable for taxes in the same manner and to the same extent as are private utility companies.⁴⁵

Rates. Cooperatives have power in all states (North Carolina has no provision on the subject) to charge reasonable prices for service rendered which shall be sufficient to pay operating and maintenance expenses and the principal and interest of their obligations. The acts expressly provide in three states that the revenues of cooperatives

"shall first be devoted to such operating

⁴⁵ Although the Indiana and Virginia acts have no separate provision on taxes, an added clause in the section on rates states that a reasonable and just rate charge shall be sufficient for the payment of any taxes

and maintenance expenses and to the payment of such principal and interest and thereafter to such reserves for improvement, new construction, depreciation and contingencies as the board may from time to time prescribe."

Although these statutory provisions embrace not only maintenance and expenses, including depreciation, but three capital items ("principal"—presumably referring to bonds, improvements, and new construction) with possibly a fourth (contingencies), the fact remains that whatever portion of these items is to be payable out of rates depends upon what the board "may from time to time prescribe." According to the act, the board is given unrestricted discretion in applying revenues to these various purposes, but in the light of other sections, commission regulation in some states and contractual control in other cases may cause difficulties in fulfilling the program outlined.

The Indiana and Virginia acts are more exacting in their requirements. Besides placing rates of cooperatives under state commission regulation (as in North Carolina), they expressly declare unlawful any rates which are not "reasonable and just." The meaning of these terms is not left merely to the discretion of the board, but is so defined as to apply to rates which must cover maintenance and operating charges, interest and sinking fund requirements on indebtedness, and funds for working capital, extensions, and replacements. Clearly these are broad requirements more easily stated than fulfilled.

The distribution of revenues not needed for the purposes cited is to be made on bases which vary somewhat

that may be assessed against the cooperative. Press reports of July 29, 1936 quote a lower Indiana court decision that cooperative associations in general shall pay the same taxes as other corporations engaged in similar lines of business.

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among the states. Tennessee and Alabama present two alternatives to the board. The excess funds shall be returned

"(1) in proportion to the gross operating revenues received from each, or (2) such return may be made by way of a general rate reduction to members, if the board so elects."

Mississippi has a somewhat similar provision with any surplus to be distributed "by the reimbursement of membership fees, or by way of general rate reductions." In the two remaining states the excess shall be returned to the members, either in cash or in abatement for current charges for energy, on a pro rata basis "according to the amount of energy consumed" (Indiana) or "according to the amount of revenue paid for energy" (Virginia).

Maine and Vermont

The acts adopted in these two states make a general provision for creating corporations to render electric service. In Maine the act of 1931 provides that:

"Whenever any electric light and power company does not supply reasonable adequate electric service in any section of the territory in which it is authorized to furnish service, any three or more persons not receiving and unable to receive service, in the said territory, at reasonable rates, may themselves, form a corporation for the transmission, use and sale of electricity in such portion of said territory as may be designated by the public utilities commission . . ."

The electric company already in that territory must supply electricity to the new organization at rates prescribed by the public utilities commission. As for the matter of incorporation, the companies organized under this law must comply with the general corporation laws of the state.

The act adopted by Vermont in 1935, which is designed to promote rural electrification, creates a Board of Rural Electrification⁴⁶ and provides that companies organized under it shall be non-profit corporations, with the Board to have complete jurisdiction over them. These non-profit bodies are tax exempt for six years after organization, and all bonds and other evidences of indebtedness are non-taxable to the holder. The capital stock of the cooperatives may or may not have par value and the total value thereof may be less than \$500.

III. Conclusions

Recent state acts have granted broad powers to state rural electrification authorities and electric cooperatives. The extent of these powers creates need in most states for statutory provisions to clarify the relation of such cooperatives and authorities to the jurisdiction of state regulatory bodies.

The rural electrification authorities are a new type of public corporation with which we have had little or no experience. It appears, however, that in view of the corporate purpose of the authorities, the breadth of their general and specific grants of power, and their freedom from regulatory controls, the scope of their influence and operations will depend largely upon their boards of directors.

The problem of public control of the electric cooperative, which occupies a peculiar position in that twilight zone which separates state commission control of private enterprise from public ownership, remains unsolved. Perhaps further experiments in public control of cooperatives are needed, for existing regulatory machinery may be only partially or not at all adaptable to the regulation of such organizations.

⁴⁶ See page 293.

Urban Land Department

MORTON BODFISH, Editor

Trustees under Real Estate Indentures

EARLY in June three important reports were distributed to the financial world. The Securities and Exchange Commission released its 261-page *Report on Protective and Reorganization Committees*¹, and followed this with its *Report on Trustees under Indentures*.² Then Representative Sabath of Illinois, Chairman of the Select Committee to Investigate Real Estate Bondholders' Reorganizations, issued its *Report*.³ Both Representative Sabath's Committee and the SEC held hearings in New York and Chicago, but the Sabath Committee has augmented its report by testimony taken in several other large cities of the country. The two investigating agencies seem to agree quite closely on the abuses which grew up during the wave of real estate bond popularity, but the corrective measures proposed differ quite radically in their preliminary stages. While the Sabath Committee may later propose measures for keeping real estate bonds out of default, the bill⁴ introduced in the last session of Congress rather "locks the barn after the horse is stolen." The SEC proposals are much more fundamental in seeking to prevent future occurrence of many of these abuses.

The *Report on Trustees under Indentures* gives some specific proposals and indicates the trend of others which will be released in the form of suggested legislation at an early date. These recommendations include:

1. Trust Indentures

- A. Minimum standards should be developed for indentures under which securities are issued and publicly offered.
- B. Adherence to these standards should be required for indentures under which new securities are issued after reorganization has taken place.

2. Trustees

- A. Qualifications for trustees should be developed in order that the impecunious and irresponsible may be eliminated.

- B. Trustees should be disqualified if they have or acquire conflicts of interest incompatible with their fiduciary obligations. Underwriter and trustee functions should also be completely divorced.
- C. Trustees should be transformed into *active* trustees with the obligation to exercise that degree of care and diligence which the law attaches to such high fiduciary position. The high standards and long experience which have existed in personal trusts would thus be available in the corporate trust field.
- D. It is further suggested that the trustee should be a bank or trust company organized under state or federal laws with resources commensurate with the responsibility of the proposed trusteeship. If a commercial bank acts as trustee, however, it should not be permitted to hold a management, ownership, or creditor position in that company or have any other interest inconsistent with its fiduciary functions.
- E. The trustee should be made responsible for failure to record, file, or refile the mortgage in the proper recording office, and for failure to use reasonable care and diligence in certifying the securities.
- F. The trustee should be made responsible for exercise of reasonable care in effecting application of the proceeds to their avowed purposes.
- G. The trustee should be made responsible for enforcing compliance with negative pledge clauses, in controlling substitution and release of security, and in taking appropriate steps to protect the security holders in case the issuer violates or threatens to violate any of these provisions.
- H. The trustee should be made responsible for ascertaining defaults under the indenture and in giving notice to security holders where such notice is necessary for their protection. Trustees commonly neglect their duty to inform bondholders of failure to meet taxes, interest, principal, or sinking fund requirements.
- I. When default occurs, the trustee should be responsible for taking proper action to protect the security; to collect principal and interest; and to represent the beneficiaries in legal proceedings.
- J. Exculpatory clauses in indentures incompatible with the standards of conduct outlined above should be outlawed.
- K. Fees for trustees should be reasonable and commensurate with active guardianship of the interests of the beneficiaries.
- L. The trustee should participate in drafting the indenture under which he functions.

¹ Report on the Study and Investigation of the Work, Activities, Personnel and Functions of Protective and Reorganization Committees: Part III, Committees for the Holders of Real Estate Bonds (Washington: Government Printing Office, June 3, 1936).

² Protective Committee Study Report on Trustees under Indentures (SEC Release No. 735, June 18, 1936).

³ Investigation of Real-Estate Bondholders' Reorganizations, *Supplemental Report*, June 18, 1936.

⁴ H. R. 12064.

3. Fiscal or Paying Agent

- A. Such agents should be divorced from the mortgagor and house of issue.
- B. Such agents should be placed under control of the trustee or in the hands of a wholly independent and responsible bank which is under obligation to notify the trustee of defaults.
- C. Funds should be guarded as carefully as trust funds and invested under the same standards.
- D. Earnings should not accrue to the fiscal or paying agent.
- E. His compensation should be fixed according to the worth of his services.

4. Method of Sale

- A. Use of the mails or any means of transportation or communication in interstate commerce should be denied for the sale of securities unless the indentures under which they are issued and the trustees thereunder meet the prescribed standards.

Examination of these suggestions reveals a system of checks and balances which promises to be useful in keeping real estate bonds from default. The activities of houses of issue are limited to the underwriting of the loan and the sale of securities. There must be no interlocking among paying agents, mortgagors, and houses of issue. Trustees are divorced from all other interests and are charged with rigid duties in checking the functions of other agencies.

Representative Sabath's work rounds out the program of the SEC by providing for orderly conservation of properties after default. The Sabath bill was reported favorably by the House Judiciary Committee on June 3, 1936, but it did not receive the approval of either the House or the Senate. It will probably be re-introduced at the next session of Congress. This bill places responsibility for reorganization of properties under jurisdiction of Section 74 or 77B of the Bankruptcy Act in the hands of the Comptroller of the Currency who shall appoint Conservators for this purpose. All extension proposals, reorganization plans, and amendments must be approved by the Conservator or, if he disapproves, he must be given an opportunity to be heard on his objections.

The Conservator may approve or disapprove the provisions and limitations of

(1) the deposit agreement; (2) protective committees and their personnel; (3) solicitation of proxies, assents, deposits, consents. The Conservator may examine any proceedings where a reorganization plan has been confirmed since January 1, 1935, and report his findings and recommendations to court. He is also to pass on all fees and commissions. The bill applies generally to proceedings which involve liabilities of over \$50,000 evidenced by at least 10 credit instruments owned by at least 10 persons. Section 2 of the bill provides for loans for reorganizations and extensions by the RFC if approved by the Conservator. "The establishment of a Conservator is solely as an aid to the court . . . He will act independently and impartially and will furnish to the court all of the facts—and the true facts—which heretofore the courts have been unable to obtain." This set-up is recommended because the Comptroller of the Currency has administered the reorganization of insolvent banks efficiently and at a minimum of cost. "Similar results can be had under a Conservator," writes Mr. Sabath.

The two reports issued by the SEC furnish an excellent basis for much needed corrective measures in the issuing of real estate bond securities.⁵ Representative Sabath's bill supplements nicely these proposals by suggesting a federal agency charged with the honest and economical rehabilitation of defaulted properties, which will act in safeguarding and protecting the rights and interests of the security holders.

These proposals, however, take care of but a part of the problem. Back of the entire picture lies something much more fundamental. Before indentures are made and bond issues marketed, someone must have envisaged the need of a building. Was this decision a "hunch" or a "shot in the dark," or was there an actual need for the project? Need is determined by careful studies of supply and demand. Equally important in placing sound securities upon the market is the necessity for some control of the appraisal of the property, possibly by making appraisers criminally liable for their opinions of value.⁶ Some system of control in the first stage of the development would thus eliminate badly conceived and poorly planned projects at the outset.

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Association of Real Estate Boards.

⁵ See Johnson, Ernest A., "The Record of Long-Term Real Estate Securities," 12 *Journal of Land & Public Utility Economics* 44-8, 195-7, 306-9 (February, May, and August, 1936).

⁶ Head, J. G., "The Liability of the Appraiser," 1 *Journal of the American Institute of Real Estate Appraisers* 143-152 (January, 1933); Hamilton, A. C., "Legal Responsibility of the Real Estate Appraiser," 2 *Ibid.* 257-9 (April, 1934).

Constitutional Problems Confronting the Resettlement Administration

IN 1935 Congress passed the Emergency Relief Appropriation Act, appropriating \$4,800,000,000 "in order to provide relief, work relief and to increase employment by providing for useful projects."¹ Section 1 of the Act provides that certain portions of the sum appropriated shall be devoted to "rural rehabilitation" and "housing." Section 5 authorizes the President to establish and prescribe agencies to acquire by purchase or by eminent domain any real property and to improve, develop, sell, or lease the same. Section 6 authorizes the President to prescribe such rules and regulations as may be necessary to carry out the Act.

By Executive Order the President established the Resettlement Administration and appointed Rexford G. Tugwell as Administrator. The President authorized the Administrator to acquire, develop, sell, or lease any real property.² The functions of the Resettlement Administration are "to administer approved projects involving . . . resettlement of destitute or low income families from rural and urban areas, including the establishment, maintenance, and operation . . . of communities in rural and suburban areas."³

Pursuant to the authority committed to him the Administrator planned the establishment of a "model community" in the Township of Franklin, New Jersey, and commenced the purchase of options on real estate within that Township. Thereupon

the Township and others⁴ brought suit in the Supreme Court of the District of Columbia against the Administrator and other government officials, seeking to restrain them from acquiring the land in question. A motion to dismiss was sustained and plaintiffs appealed to the Court of Appeals of the District. That court reversed the decision of the trial court and held the Act invalid on the grounds that: (1) it delegated legislative power to the President, and (2) it violated the Tenth Amendment to the Constitution (*Township of Franklin et al. v. Tugwell et al.*, — F. (2d) — (1936).)⁵

*Delegation of Legislative Powers.*⁶ It is elementary that Congress cannot abdicate its legislative powers in favor of an executive or administrative agent. However, it is equally clear that Congress must and may delegate powers involving a broad use of discretion. Indeed, standards sustained in several cases have been extremely indefinite,⁷ and not until *Panama Refining Co. v. Ryan*⁸ was any Act of Congress invalidated on the ground that it delegated legislative power.

Since the cases do not establish a clear line between a delegation which is lawful and one which is not, it is difficult to prophesy the reaction of the Supreme Court to any particular delegation. The main concerns of the Court seem to be embodied in the following two questions: (1) Could Congress practicably have legislated further on the subject;⁹ (2) Has Congress laid down an intelligible standard to guide the action of

¹ Public Resolution, No. 11, 74th Congress.

² Executive Order No. 7027.

³ Executive Order No. 7200.

⁴ Other plaintiffs were the Board of Education of the Township (which the court declared was without capacity to maintain the suit), and certain taxpayers of the Township.

⁵ This discussion will be confined to the constitutional issues decided by the court. Other questions passed upon by the court were whether the suit was one against the United States; whether the plaintiffs were in a position to present a justiciable issue; whether the suit could be brought outside of New Jersey.

⁶ For a discussion of this problem see Comment, 30 *Illinois Law Review* 494, 495-500 (1935).

⁷ *Buttfield v. Stranahan*, 192 U. S. 470 (1904), involving a statute empowering the Secretary of the Treasury to "establish uniform standards of purity, quality, and fitness for consumption of all kinds of teas

into the United States," held not too indefinite; *Union Bridge Co. v. United States*, 204 U. S. 364 (1906) concerned the power of the Secretary of War to ascertain whether bridges constituted an "unreasonable obstruction" to the free navigation of navigable waters; *United States v. Grimaud*, 220 U. S. 506 (1910) involved the power of the Secretary of Agriculture to "make such rules and regulations . . . as will insure the objects of the [forest preserves], namely to regulate their occupancy and use and to preserve forests thereon from destruction;" *Federal Radio Commission v. Nelson Bros. Co.*, 289 U. S. 266 (1933) concerned the requirement that the Radio Commission act as "the public convenience and necessity requires" in order to preserve "equality of broadcasting service, both of transmission and reception."

⁸ 293 U. S. 388 (1935).

⁹ *Buttfield v. Stranahan*, *supra*, n. 7; *United States v. Grimaud*, *supra*, n. 7.

the recipient of the power delegated, to the end that he will not be exercising a discretion which is wholly unfettered?¹⁰

The first question would seem to be, in part at least, a question of fact. Thus some force is lent to the argument of the two partially dissenting justices who urged that the validity of the instant delegation should not have been considered by the reviewing court until opportunity had been given the trial court to hear all pertinent facts.¹¹ While the answer to the second question may be to some extent dependent upon the answer to the first, it is clear that the President's power to acquire land under the Act is not without limit. Purchases must be designed to provide relief and "increase employment by providing for useful projects." Also, the money appropriated may be spent only for certain enumerated purposes—among which are "housing" and "rural rehabilitation." Thus the agencies set up by the President cannot acquire and dispose of land at will. On the other hand, there are many ways to "increase employment"; the word "useful" is susceptible of many interpretations; the words "housing" and "rural rehabilitation" permit of a broad play of discretion. The instant standard may consequently be called vague, perhaps nearly if not equally as vague as that in the Panama case,¹² but little more so, it would seem, than some which have been upheld.¹³

Violation of the Tenth Amendment. Since an unlawful delegation of legislative author-

ity could probably be remedied by further legislation, an even more serious barrier to Resettlement activities is presented if, as the majority holds, the Act (as it is being executed) is violative of the Tenth Amendment.¹⁴ Relying on *United States v. Butler*,¹⁵ the majority concludes that the Act invades the reserved rights of the states. In the *Butler* case, it will be recalled, the Supreme Court invalidated the Agricultural Adjustment Act¹⁶ on the ground that it was an attempt to coerce farmers to submit to federal regulation of matters the regulation of which was reserved to the states. But the Court accepted the view that the general welfare clause¹⁷ confers upon Congress a substantive power to spend for the general welfare not dependent upon the other powers subsequently enumerated in Section 8 of Article I. Thus, when Congress exercises this power, it exercises a specifically delegated power, and not one reserved to the states under the Tenth Amendment. It follows then that Congress will not be invading rights reserved to the states by a mere expenditure of money if such expenditure is for the general welfare. Nor can it be said that the *Butler* case holds that reserved rights will be invaded merely because Congress attaches conditions as to the use of the money it is spending. Indeed, "if the power to spend is to have any meaning, the 'necessary and proper' clause of Article I, Section 8, must permit of the imposition of condi-

Is there a distinction tacitly recognized by the Court between a statute such as that in the Panama case and the one in the instant case; i. e., is it possible that a more definite standard will be required where the law is of a *regulatory* nature such as the N. I. R. A?

¹⁰ See the cases cited in footnote 7 *supra*.

¹¹ "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

¹² 297 U. S. 1 (1936). For a lucid discussion of this case, see Note, 30 *Illinois Law Review* 938 (1936). See also Note, 36 *Columbia Law Review* 667 (1936); J. A. C. Grant, "Commerce, Production, and the Fiscal Powers of Congress," 45 *Yale Law Journal* 751, 991 (1936).

The discussion of the *Butler* case which follows in the text is not to be found in the opinion of the Court, which is undoubtedly somewhat confusing; rather it is an attempt on the part of the writer to discover what is actually *settled* by the *Butler* opinion and in that light to examine the reasoning of the court in the instant case.

¹³ 48 Stat. 31 (1933); 7 U. S. C. A., §§601-19 (1934).

¹⁴ U. S. Const., Art. I, §8.

¹⁰ All the cases on delegation of legislative powers have raised this question. It is submitted that the Court, in determining the adequacy of a standard, might legitimately concern itself with a third problem—namely, the scope of the effect of the legislation. To be more specific, it seems clear that a standard, which might afford an adequate guide for an administrative officer in administering a law which affected a small community might not be adequate if the law affected the whole country. For instance, one might well be able to say what a "useful project" would be within a restricted locality; but is it so easy to tell what is a "useful project" with reference to the whole country?

¹¹ It will be recalled that the trial court heard none of the facts since it sustained a motion to dismiss before the case went to trial.

¹² In the Panama case the President was empowered to prohibit interstate transportation of oil withdrawn from storage in excess of the amount permitted to be withdrawn from storage by any state law. This standard was considered by the Supreme Court in connection with the declaration of policy under Section 1 of the N. I. R. A.

tions relative to the *use* of the money by the recipients in order to insure its expenditure for the general welfare."¹⁸ Otherwise recipients of Congressional grants might devote the money they receive to purposes wholly unrelated to the general welfare. If this be sound, in order that the Tenth Amendment be violated within the meaning of the Butler case, there must be a showing that Congress has gone beyond a mere attempt to regulate the use of the money it spends—there must be a showing that Congress has attempted to regulate activities unconnected with the use of the money spent.¹⁹ Thus the conclusion of the court in the instant case—that there is a violation of the Tenth Amendment—must rest upon the existence of one of two situations: (1) the activities of the defendants (assuming they have acted within the scope of the power conferred upon them by the Act) are not conducive to the general welfare, or (2) Congress has attempted to regulate activities unconnected with the use of the money spent—a situation which could hardly be said to exist unless it were made clear that people had been coerced by some means or

other to conform to the plans of the settlers.

Whether either of the above situations exists seems to be dependent upon facts which could not have been before the court, since the trial court, by sustaining the motion to dismiss, precluded itself from hearing any evidence. Thus once more appears the logic of the view of the minority that more facts should have been found before constitutional questions could properly be passed upon. Indeed, in the absence of pertinent facts, it is difficult to see how the majority could decide, as it did, that the expenditures contemplated by the defendants were not for the general welfare.

In conclusion it may be said that the decision of the majority may be supportable on the delegation question alone. This is hardly the case so far as the question of violation of the Tenth Amendment is concerned. The Court would have done well to heed the compelling reasoning of the minority.

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¹⁸ Note, 30 *Illinois Law Review* 938, 941-2 (1936).

¹⁹ It is difficult to conceive of a situation where the imposition of restrictions as to the use of the money would not be "necessary and proper." "... the power to spend for the general welfare would be in-

capable of practical application if Congress were unable to make grants on condition and could do no more than make outright gifts with the suggestion that the money be used for the intended purpose." (See Note, 30 *Illinois Law Review* 938, 941 (1936).

The Record of Long-Term Real Estate Securities: By Types of Property

PREVIOUS studies¹ examined the record of real estate securities amounting to a million dollars or over by years of issue and by the principal cities in which the securities were floated. It is also important to determine how investors fared according to the type of property which they relied upon for interest and principal payments. Such a study is here undertaken. The monthly lists of real estate flotations in the *Commercial and Financial Chronicle* were used as a basis for the study which includes issues offered during the period 1919-1935 inclusive. In order to give a current picture of the situation, market values are computed for April, 1936 instead of for April, 1935 as in the previous studies.

¹ 12 *Journal of Land & Public Utility Economics* 44-48 (February, 1936); *Ibid.*, 195-97 (May, 1936).

The issues were divided into ten property groups (Table I). The first three—office buildings, hotels, and apartments—are self-explanatory. The mercantile issues include department stores, chain stores, and other store properties. The theater issues are confined to those in which the theater is practically the entire source of earnings, although such buildings commonly include a few stores, offices, and sometimes even apartments, to make the best use of the building. The office-theater buildings, on the other hand, are primarily office buildings, containing considerably more stories than would be necessary for the theater. In such cases, however, theater rentals are an important factor in the total earnings of the property. Club properties are principally athletic clubs. Issues covering property which is used in several of the foregoing ways

TABLE
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Type

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and cannot therefore be classified under any one of the types are grouped under combination properties. Generally these issues cover several buildings which are grouped by the borrowing company for the purpose of floating the loan. For example, an issue may cover an office building, apartment house, and theater. The combinations which occur are not repeated with sufficient frequency to justify setting them up in separate classes. Diversified residential-income properties include land and buildings serving as security for issues of mortgage and finance companies. The typical procedure is for the mortgage company to advance funds to individual borrowers against mortgages on residential or less pretentious business properties. These mortgages turned over to a trustee are used as collateral for securities issued by the mortgage company. Real estate developments consist of properties held by real estate companies for development purposes. Most of the issues are based upon subdivisions designed to be sold for residential purposes, the land or contracts of sale serving as security for the issues. In a few cases the issues in this class are based on land being improved with homes by the realty company or on partly improved land undergoing further improvement. The classification here followed is based on the predominant use of the property. Thus office buildings, hotels, and apartments

frequently have stores on the ground floor. Although such auxiliary uses of the property have an influence upon earnings, the success or failure of the venture depends upon the predominant use to which the property is put.

The study does not include issues based upon post offices, hospitals, garages, churches, schools, and colleges because the number of such issues in the denominations studied is not large enough to test those securities. Issues of warehouses and cold storage plants, newspapers, manufacturing concerns of various types are also excluded for the reason that these issues are more properly classified as industrials. Railway and harbor terminals are likewise excluded. It was also necessary to eliminate a number of issues, particularly those of diversified residential-income properties, because the amounts outstanding or recent bids were not available in the published reports. The issues examined total \$2,263.7 million, about 78% of the issues amounting to a million dollars or more and 55% of all real estate issues for the period.

Summary of the results of the study contained in Table I shows that 28% of the issues have been retired by call or payment at maturity, about 8% are outstanding and have fully met all the contract stipulations, and 64% are outstanding and have failed in some degree to meet the terms of issue.

TABLE I. SUMMARY OF LONG-TERM REAL ESTATE ISSUES AMOUNTING TO ONE MILLION DOLLARS OR OVER OFFERED, 1919-1935, BY PRINCIPAL TYPES OF PROPERTY
(Amounts in Millions of Dollars)

Type of Property	Total Issues	Securities Retired				Securities Outstanding			
		Called		Matured		Meeting Contract		Not Meeting Contract	
		Amount	Percent Total	Amount	Percent Total	Amount	Percent Total	Amount	Percent Total
Office Buildings.....	\$751.0	\$138.5	18.4%	\$66.1	8.8%	\$91.5	12.2%	\$454.9	60.6%
Hotels.....	411.7	53.8	13.1	30.3	7.3	4.0	1.0	323.6	78.6
Apartments.....	339.0	57.4	16.9	30.0	8.9	6.5	1.9	245.1	72.3
Mercantile.....	224.3	52.8	23.5	31.6	14.1	36.4	16.2	103.5	46.2
Theater.....	96.6	14.0	14.5	15.5	16.0	22.9	23.7	44.2	45.8
Office-Theater.....	78.7	16.3	20.7	5.4	6.9	4.9	6.2	52.1	66.2
Clubs.....	40.6	.....	.....	7.9	19.5	.....	.....	32.7	80.5
Combination Properties..	91.1	.....	.....	20.0	22.0	5.6	6.1	65.5	71.9
Diversified Residential-Income.....	158.9	29.5	18.6	35.5	22.3	2.1	1.3	91.8	57.8
Real Estate Development..	71.8	10.6	14.8	18.6	25.9	3.0	4.2	39.6	55.1
Total.....	\$2,263.7	\$372.9	16.5	\$260.9	11.5	\$176.9	7.8	\$1,453.0	64.2

Mercantile and office-theater issues have the highest proportion of securities called, while office buildings, diversified residential-income properties, and apartments also have percentages slightly above the average. The calls in office and office-theater issues were concentrated in the years before 1931. This was generally true of the mercantile group, although a few important issues were retired during the past year. A number of diversified residential-income issues floated in the West were called for payment recently. None of the club and combination property securities were called.

In bonds retired by serial payments, purchases for sinking funds, and payment at final maturity date, real estate developments, diversified residential-income and combination properties have the highest percentages. Payments on the individual mortgages and sales contracts were evidently made with sufficient rapidity on some issues to retire a considerable portion of the original issue. The high percentages of maturities in club and combination properties are apparently attributable to the absence of calls. On the other hand, office buildings and office-theater buildings are below average in securities matured. Hotels and apartments with a large percentage of failures also have a small proportion of issues thus retired.

Less than $\frac{1}{8}$ of the issues which are now outstanding have fully met the originally scheduled payments. Additional failures

since last year have reduced the proportion of issues which have a clear record. Theater and mercantile issues have made the best showing in meeting stipulated payments and have the lowest percentage of securities involved in failures. Diversified residential-income properties have made a poor record in meeting contract requirements, but because of a relatively high percentage of calls and maturities, have been better than average in avoiding readjustments. To a lesser degree, this is also true of real estate developments, but the record here is nearer the average. Office buildings are somewhat better, while office-theater buildings are somewhat poorer, than the average in meeting payments and avoiding failures. Hotels and apartments have a generally poor record on outstanding issues, but clubs have the worst, as all outstanding issues were involved in failures or readjustments.

The amounts which investors could realize in April, 1936 on these outstanding securities are given in Table II.² The securities which are not involved in failures have been quite well tested by now, and market values are decidedly better than those which

² The April 5 and the May 5, 1936 issues of the *Real Estate Bond Service* were the principal sources of information on bids. The May 1 issue of the *National Corporation Bond Summary* was also used. The high bid was taken where there was a range of bids. Where the original securities have been converted and quotations on them are no longer available, bids on the new issues were used.

TABLE II. MARKET VALUE OF OUTSTANDING REAL ESTATE SECURITIES DURING APRIL, 1936, COMPARED TO FACE VALUE
(Amounts in Millions of Dollars)

Type of Property	Issues Meeting Contract			Issues Not Meeting Contract		
	Face Value	Market Value	Percent of Market to Face Value	Face Value	Market Value	Percent of Market to Face Value
Office Buildings.....	\$ 91.5	\$ 73.7	80.5%	\$ 454.9	\$ 159.8	35.1%
Hotels.....	4.0	3.5	87.5	323.6	84.5	26.1
Apartments.....	6.5	4.2	64.6	245.1	65.8	26.8
Mercantile.....	36.4	35.0	96.2	103.5	45.9	44.3
Theater.....	22.9	20.5	89.5	44.2	20.0	45.2
Office-Theater.....	4.9	4.3	87.8	52.1	17.7	34.0
Clubs.....				32.7	5.2	15.9
Combination Properties.....	5.6	5.1	91.1	65.5	16.2	24.7
Diversified Residential-Income.....	2.1	1.8	85.7	91.8	26.6	29.0
Real Estate Development.....	3.0	2.4	80.0	39.6	12.5	31.6
Total.....	\$ 176.9	\$ 150.5	85.1	\$1,453.0	\$ 454.2	31.3

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prevailed last year. The transfer of some issues which previously appeared in this group to the one involved in failures has also been a factor in the improvement because the prospective default of such issues depressed prices last year. Holders of mercantile and combination property securities could realize over 90c on the dollar and, except for apartment issues, all owners of securities in this group would be able to get over 80c on the dollar. Purchasers of the few apartment issues which have no reported failures could realize only about 65c on the dollar.

Where defaults in interest and serial payments, omission to make purchases for sinking funds, or readjustments in the original agreements under which the securities were issued are involved, purchasers fared much worse. Here there is considerable variation among groups. Owners of mercantile and theater securities could realize about 45c on the dollar or nearly three times as much as club securities would bring. Purchasers holding over half a billion dollars of apartment and hotel securities could realize only a little over 26c on the dollar. Market values on combination type properties were even lower. For all the securities involved in failures, holders could recover 31.3c on the dollar. Thus despite the very general recovery which has taken place in real estate securities during the past year, purchasers could recover only a small portion of their original investments.

A summary of the analysis presented in this paper is given in Table III, which compares the total recoverable value (calls, matured, plus market value of outstanding securities) with the total face value. Investors in mercantile and theater properties

TABLE III. TOTAL RECOVERABLE VALUE (CALLS, MATURED, PLUS MARKET VALUE OF OUTSTANDING SECURITIES) OF REAL ESTATE SECURITIES COMPARED TO TOTAL FACE VALUE
(Amounts in Millions of Dollars)

Type of Property	Total Face Value	Total Recoverable Value	Percentage Recoverable to Face Value
Office Buildings.....	\$751.0	\$438.1	58.3%
Hotels.....	411.7	172.1	41.8
Apartments.....	339.0	157.4	46.4
Mercantile.....	224.3	165.3	73.7
Theater.....	96.6	70.0	72.5
Office-Theater.....	78.7	43.7	55.5
Clubs.....	40.6	13.1	32.3
Combination Properties.....	91.1	41.3	45.3
Diversified Residential-Income.....	158.9	93.4	58.8
Real Estate Development.....	71.8	44.1	61.4
Total.....	2,263.7	1,238.5	54.7

could recover about 73c on the dollar, which is materially better than the recoveries for other investors. Holders of real estate development and diversified residential-income securities fared as well as purchasers of office-building issues. Those who acquired hotel, apartment, or combination property securities realized distinctly less than the average. But purchasers of club issues took the heaviest losses and could realize only 32.3c on the dollar. For the groups as a whole, investors could recover 54.7c on the dollar.

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Further Comments on Tax-Exempt Federal Properties

IN the November issue of the *Journal* the writer reviewed at some length the growth of federal ownership of properties and enterprises and the general trend toward removal of such properties from the scope of state and local taxing authority.¹ In the nine months since that article was published further developments have supported the conclusions reached at that time.

The question was raised as to the power

of states under Section 5213 to tax shares of bank stock owned by the RFC. Of the three state court opinions cited, two ruled that such stock was tax-exempt. The third decision by the Maryland Court of Appeals was that such stock could be taxed. The RFC appealed this decision to the United States Supreme Court which held² the Maryland tax on bank stock collectible through the bank, which is authorized to

¹ "Federal Ownership and State Finances with Particular Reference to Railways," 11 *Journal of Law & Economics* 325-341 (November, 1935).

² 56 Sup. Ct. Rep. 417, February 3, 1936.

assess the tax against dividends paid the owners of the stock, to be constitutional. The decision was on the grounds that a state or municipality may tax instrumentalities of the Federal Government if the United States consents to such a tax. The RFC was held to be such an instrumentality within the meaning of *McCulloch v. Maryland*.³ Since the statute relating to state taxation of national banks⁴ provided that "all" shares of national banks are subject to taxation in the states and municipalities in which such banks are located, the shares held by the RFC were held to be taxable even though it is a federal agency.

Immediately a bill⁵ was introduced in the House of Representatives by the Committee on Banking and Currency and rushed to passage. This bill specifically provided exemption from state taxation for shares of preferred stock, capital notes, and debentures of state banks and trust companies, now or hereafter owned by the RFC. Dividends or interest from such securities were also exempted.

The debates on this bill disclosed a difference of opinion in Congress as to the wisdom and merit of the tax-exemption proposal. Proponents argued that Congress did not in the first instance intend to allow states to tax the RFC, most states, by their failure to press taxation of RFC stock, having evidenced cognizance of this intent; that allowing states and localities to tax would in effect penalize the Federal Government for relief activities because these units of government profited from the rescue of their banking facilities and because the taxes would more than consume the $\frac{3}{4}\%$ margin between the $2\frac{3}{4}\%$ paid by the RFC on money borrowed by it from the Federal Treasury and the $3\frac{1}{2}\%$ return realized on preferred stock owned; and that exemption would establish parity between the states, since some states tax while others do not.

Opponents of tax-exemption objected to depriving localities of this tax source as well as to the extension of exemptions by Congress as government goes more and more into business, thus making it increasingly difficult for state and local governments to raise necessary revenue and forcing them to

come to Washington for more "handouts." Alarm was expressed concerning tax-exempt ownership of homes taken over by HOLC and farms taken over by land banks.

In spite of opposition the bill was rushed to passage to permit the RFC to escape the impending levy and collection of taxes on its stock by the State of Maryland, as permitted by the decision of the Supreme Court.

Another governmental agency, PWA, has been concerned with the promotion and prosecution of construction of low-cost housing projects. Replying to a request by Public Works Administrator Ickes for permission to pay the City of Atlanta \$9,600 yearly in lieu of taxes, such payment to be for municipal services to the Techwood Housing project, Comptroller General McCarl ruled that such fees might not be paid. His ruling went on the grounds: (1) that the municipalities receive great benefits at practically no expense and should be glad to service the housing projects without charge; (2) that there is a possibility that the projects may in a few years be turned over to private control at which time the localities can be in a position not only to recoup revenues lost through inability to tax but also to make a profit at the expense of the relief program; and (3) that the provision in the Housing Act, that all monies received from any sale, or lease, or repayment of a loan must be used to retire government obligations issued to finance the operations, left no authority to divert rental receipts to the payment of local taxes or fees⁶.

Subsequently, in January, 1936 Comptroller General McCarl ruled that the rents on housing projects must be high enough to return the entire capital cost of the projects with interest equal at least to the rate which the United States must pay on its bonded indebtedness.⁷ The effect of this ruling by the Comptroller General was to prevent subsidizing renters of low-cost housing through cheap rentals, a scheme intended to expedite slum clearance. Since this ruling would still permit low rentals to persons of limited incomes but not to low-income

³ 17 U. S. (4 Wheat.) 316 (1819).

⁴ Section 5213.

⁵ S. 3978.

⁶ See Bulletin No. 72, "Municipal Service Charges on

PWA Housing Projects," issued by National Association of Housing Officials, October 25, 1935.

⁷ See Bulletin No. 78, "McCarl Ruling on Federal Housing Subsidy," issued by National Association of Housing Officials, February 1, 1936.

groups for the betterment of whose living conditions the slum-clearance projects were proposed, the real purpose of the program seemed to be threatened.⁸

As further evidence of the general trend respecting the federal policy limiting state and local powers to tax federally owned enterprises, mention should be made of identical bills⁹ introduced in the House of Representatives by Messrs. Healey and Russell, respectively. These bills provided for payments in lieu of taxes to be made to states and their political subdivisions on the basis of agreements covering the cost of public or municipal services to be supplied for the benefit of the housing projects or the persons residing in or occupying the premises but taking into consideration the benefits to be derived by the state or political subdivision from such project.

The amount of such payments in any year in lieu of taxes would not be permitted to exceed the larger of either 5% of the gross rentals for the project for such years or the amount of real-property taxes levied upon the site of the project for the last tax year prior to acquisition of the site by the United States. The limit is to be fixed by the greater of the two amounts. It should be noted that this method of computing the fee or charge or tax, as one may choose to term it, strongly resembles that permitted by the act creating the Tennessee Valley Authority.

In its final form in the so-called George-Healey-Russell bill as enacted into law¹⁰ there was no limitation expressed on the amount of payments that could be made in lieu of taxes. It is stipulated that these

payments must be met out of the property rentals and are to be determined as to amount according to the general principle of taking the cost of the service rendered by the local unit of government less an allowance to compensate for the value of the benefits derived from the establishment of the project by the state or local jurisdiction where it is located. The result promises to be a closer approximation of tax-exemption than of tax liability.

The score thus far being even—one for tax-exemption and one for taxation or its equivalent with limitations—there remains to be mentioned a very recent opinion of the Comptroller General raising the score to two in favor of tax exemption. In this decision¹¹ the Comptroller General held that a state may not exact a fee from the Electric Home and Farm Authority to qualify it as a foreign corporation permitted to do business in the state. An attempt to exact such a fee is held not to be authorized in the federal law and to be state interference with the transaction of business by a federal instrumentality, the funds for which are advanced by the United States and carried in the Federal Treasury. *McCulloch v. Maryland* is cited as authority for this holding that the EHFA is a federal instrumentality which the states may not consider as a separate entity for taxing purposes, "The power to tax being the power to destroy."

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project in Chicago; Brewster project in Detroit; and the projects in Evansville, Indiana and Schenectady, New York.

⁸ H. R. 10551 and 10554, introduced January 23, 1936.

¹⁰ Public No. 837, 74th Congress.

¹¹ No. 71363, dated March 17, 1936.

⁸ Ten projects were affected by this ruling: Techwood and University in Atlanta; Riverside Heights and William B. Patterson Courts in Montgomery, Alabama; Cedar-Central in Cleveland; Community Housing in Indianapolis; the addition to the Jane Addams

Land Resources Department

GEORGE S. WEHRWEIN, *Editor*

Wind Erosion Legislation in Texas and Kansas

REFERENCE has been made in a previous article in this issue to the "drastic protections" of the Texas Wind Erosion Act.¹ This law, passed May 21, 1935, permits the creation of Wind Erosion Conservation Districts co-extensive with the boundaries of the county but with its own powers separate from county government, although administered by the county commissioners and other county officers in ex officio capacity.² Fifty tax-paying voters may by petition call for an election. If the majority of "the legally qualified property tax paying voters" of the county vote in favor of creating and incorporating such a district, it shall be set up. Such Wind Erosion Conservation Districts are declared to be "agencies of the State of Texas charged with the responsibility of conserving the natural resources in the soil." To this end they have been granted power and authority to:

"(a) To prevent or aid in the prevention of damage to lands and the public roads and highways due to the unnecessary movement of sand, dust and soil originating from lands within or without such District.

"(b) To construct improvements and maintain any and all facilities to arrest or prevent the erosion of soils or lands within such District by reason of winds.

"(c) To have the right to enter upon any land in the District for the purpose of treating same to prevent the spread of soil erosion and damage to other lands in such District."

Not only has the governing body of the district the right to enter upon *any* land but the owner must pay for the cost of preventing unnecessary erosion or reclaiming lands which have been depreciated by winds. The assessment of such charges can be made only after due notification of the intention to do erosion control work, and after a public hearing at which all owners involved are "commanded" to appear. However, the assessment against any person or property shall not be in excess of the benefits received. After being legally determined, this assessment constitutes a

valid and binding first lien against the property subject to suit, foreclosure and sale in the same manner as other liens on real estate. The assessment may be divided into three equal annual installments bearing interest at 5%.

Although the districts have no power to levy ad valorem taxes or create any obligation out of funds raised by taxation, they have other sources of income besides the assessments against property owners. Wind erosion has made many highways useless in some of the western counties. Therefore erosion has public as well as private aspects. Consequently, the law permits the transfer of money obtained from automobile registrations up to 20% and all road and bridge special taxes from the county to the district at the discretion of the Commissioner's Court. In six counties where erosion had become a public calamity all the state ad valorem taxes raised in 1935 and 1936 in these counties were ordered to be diverted to the districts set up before October 1, 1935. In three other counties 50% of the state taxes was to be so diverted. However, ad valorem taxes raised for support of schools or for payment of Confederate pensions could not be diverted to the districts.

Other sources of income may be grants, gifts, advances, or donations from the Federal Government or other agencies. The law permits the districts to receive such funds as well as to borrow money to carry out their work, with interest limited to 5%. Cooperation with the Agricultural College, experiment stations, the Soil Erosion Service, and other agencies is specified in the Act.

In this connection it is interesting to compare the Texas statute with a soil drifting act passed in Kansas as early as 1913. At that time the law applied only to counties with less than 10,000 population (15,000 according to an amendment passed in 1933), but by an act approved February 8, 1935 this restriction is removed. The board of county commissioners of any Kansas county

¹ See Wehrwein, George S. and Baker, J. A., "Relocation of Non-Conforming Land Users of the Zoned

Counties in Wisconsin," *supra*, p. 248.

² Laws 1935, c. 337.

is authorized to devise methods of stopping soil drifting and may call to their assistance the state college experts. The board has power to "order the lands subject to drifting to be cultivated, plowed, ditched, furrowed, sowed or planted or handled or cared for in any other manner" to control wind erosion. If the owner fails to comply with these orders the board may employ persons to carry out their "reasonable" orders, to enter upon the land for such purposes, and to assess reasonable costs against the lands affected which shall be collected like other

real estate taxes.³

It is reported, however, that the Kansas law has never been enforced. Perhaps the Texas law will be more workable since it follows the irrigation or drainage district principle. It provides means and machinery for financing erosion control instead of relying upon "compulsions" to be enforced by an elected board of commissioners. It is extremely difficult to enforce a law of this kind, especially when the entire burden falls upon the land owner.

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³ Rev. Stats. 1923, art. 26, c. 19, § 2611; *Ibid.*, 1933; Laws 1935, c. 138.

Rural Zoning in New York

IN NEW YORK the entire area of the State may be subjected to zoning regulations under the authority of the city, village, or the town. All area outside corporate limits of cities is included in the towns. The town is legally a municipal corporation with broad powers of local self-government. The state enabling act authorizing towns to adopt zoning ordinances is almost identical with similar acts granting zoning authority to cities and to incorporated villages.

The zoning and planning powers of towns are contained in Article 16 of the Town Law. While the zoning powers were drafted with urban and suburban conditions chiefly in mind, they are sufficiently broad to meet some of the needs of rural zoning. Towns are authorized to regulate and restrict "the location and use of buildings, structures and land for trade, industry, residence or other purposes." "Other purposes" presumably might include agriculture, forestry, recreation, etc. In stating the purposes to be served by zoning regulations chief emphasis is clearly placed on urban conditions such as the provision of adequate light and air and the prevention of overcrowding of the land. It is, however, stated that such regulations shall be designed to facilitate the adequate provision of transportation, schools, and other public requirements. This might be taken as justification for regulations to prevent a too scattered agricultural settlement. It is further provided that the regulations shall be designed to encourage the most appropriate use of the land throughout the town. This too might be assumed to con-

template broad rural zoning.

It is not believed that any strictly rural town outside the sphere of influence of the large cities has adopted zoning regulations. Certain suburban towns, however, having large rural areas have adopted zoning ordinances. In such towns the primary use of the zoning regulation in the rural area has been to protect roadside development and to prevent small-lot developments in areas more appropriate for large estates.

While counties in New York State may establish planning boards, they are not authorized to adopt zoning ordinances. It is believed that counties should be given broad zoning powers. Such powers need not conflict with the powers granted to the towns. In large measure the initiative in strictly rural zoning will have to be taken by the counties and in some measure by the State. As a practical matter, the rural town will not be sufficiently interested in the broad problems of submarginal land use, erosion control, timber production, roadside protection, and recreation to expect that it will take a leading role in regulation.

It is to be noted, however, that the major problems in rural zoning in New York are quite different from those of the cut-over areas of Wisconsin, for example. While surveys have shown that there are some 6,000,000 acres of idle and submarginal farm land in New York, most of the farms in these submarginal areas are still occupied. Zoning regulations in Wisconsin are not retroactive and it would probably not be practicable to make them retroactive in New York. This would mean that the farms

now occupied could continue to be occupied indefinitely. The restrictions against farm settlement would, therefore, not apply to farms now occupied; and probably as a matter of practical politics, restrictions would not be applied to unoccupied farms that have buildings suitable for occupancy. It seems logical, nevertheless, that where farms have been abandoned and the buildings are unfit for occupancy, future settle-

ment should be prohibited. On the other hand, under the State's reforestation program for the purchase of submarginal lands, it seems probable that most of these abandoned farms will eventually be taken over by the State.

ROBERT WHITTEN.

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Notes on Maryland Zoning Laws

ZONING in Maryland began with a grant of authority by the Legislature to certain cities to regulate the use and height of buildings. As early as 1904 authority was conferred upon the City of Baltimore to limit the height of buildings within certain designated areas, followed by the conferring of zoning authority upon certain cities in Maryland by special acts of the Legislature. For instance, in 1924 the cities of Cumberland and Takoma Park were permitted to establish zoning commissions and boards of adjustments for the purpose of securing a more orderly development and better utilization of city property.

In 1927 the State Legislature passed a general zoning enabling act empowering cities of 10,000 or more inhabitants to zone.¹ This act is substantially the same as the standard zoning enabling act. In the same year the Maryland Legislature established the Maryland-Washington Metropolitan District under control of the Maryland-National Capital Park and Planning Commission. Authority is granted by the Act for the adoption of a master plan, for zoning, subdivision control, park development, building set-backs, and supervision of street improvement. A special tax levy of three cents on each 100 dollars of assessed valuation of property is levied for administration purposes, including enforcement. At the present time the Maryland-Washington Metropolitan District comprises a large part of Prince George's and Montgomery Counties, a suburban region including 22 incorporated places interspersed with homes, farms, and undeveloped lands.

Zoning is a part of the regional planning program of the Maryland-Washington Metropolitan District. Both Prince George's and Montgomery Counties have passed

zoning ordinances, with the assistance of the Park and Planning Commission, the purpose being "to limit, regulate, and restrict the location of buildings and other structures and of premises to be used for trade, industry, and residence." The district is divided into three types of residence zones, commercial and industrial zone areas. Commercial signboards have been restricted to industrial zones, except signs in commercial zones advertising the general business conducted on the premises. No provision in the law regulates or restricts agricultural activities. In brief, zoning is used to aid in carrying out the planning program by regulating community growth along proper lines with special concern to health, comfort, safety, and general welfare of the people residing in the area. It is a restriction upon private property rights in the interest of community development. However, much of the planning work lies outside the field of zoning in that it deals with streets, parks, and other open spaces owned by the public.

In 1933 the Maryland Legislature passed the Planning Enabling Act² which confers zoning authority upon any municipality. A municipality is defined by the act to include or relate to counties, towns, villages, or other incorporated political subdivisions. The part of the Act conferring zoning authority upon municipalities is practically identical with the standard zoning act except that the words "counties, cities and other incorporated areas" are substituted for "cities and incorporated villages." Title I of the Act deals with planning and Title II with zoning. By the Act, planning commissions are granted authority

"to make and adopt a master plan . . . for development of said territory including among other things, the general location, character and extent of streets,

¹ Laws 1927, c. 705.

² Laws 1933, c. 599.

viaducts, subways, bridges, waterways, playgrounds, squares, public buildings, parks, aviation fields, and other ways, grounds and open spaces, the general location and extent of public utilities and terminals, whether publicly or privately owned or operated, for water, light, sanitation, transportation, communication, power, and other purposes; also the removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of any of the foregoing ways, grounds, open spaces, building property, utilities or terminals as well as a zoning plan for the control of height, area, bulk, location and use of buildings and premises."

The Act is primarily a county planning act to which is added zoning power over type and use of buildings in order to conserve more effectively and carry out municipal planning.

Of the 23 counties in Maryland, 11 are specifically excepted by Section 35 of the Act, and of these all but one, Prince George's County, are rural in character. And the major part of Prince George's County is already within the Maryland-Washington Metropolitan District. Although under the law 12 counties are granted authority to zone, apparently nothing in the act confers power upon counties to zone agricultural lands. Zoning is limited to that part of planning which has to do with regulations relative to residential, commercial, and industrial districts.

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The Tennessee State Planning Commission

ENACTED February 19, 1935, Senate Bill No. 123, Chapter 43 of the Tennessee Public Acts of 1935 provides for the "creation and establishment of a state planning commission." "In response to suggestions from the National Planning Board and the Tennessee Valley Authority, Governor Hill McAlister appointed a temporary state planning board on April 11, 1934."¹ This temporary board obtained enactment of the bill in the 1935 session of the Legislature which created the Tennessee State Planning Commission.²

The statute is not merely a planning enabling act; it creates and establishes a planning commission and specifies mandatory duties and activities. It consists of nine members—namely, the Governor of the State and eight citizens of the State appointed by the Governor. The citizens appointed may hold no full time salaried public office or public employment. All members serve without compensation, but are allotted necessary traveling and other expenses while engaged in work of or for the commission. Of the eight appointive members, two are residents of each of the three grand geographical divisions of the state and two are from the state at large.

"It shall be the function and duty of the state planning commission to make and adopt a general state plan for the physical development of the state. Such plan . . . shall show the commission's recom-

mendations for the development of the state and may include amongst other things, the general location, character and extent of public . . . works . . . ; also a land utilization program, including the general classification and allocation of the land within the state amongst agricultural, forestry, recreational, soil conservation, water conservation and supply, mineral conservation and supply, sanitary and drainage facilities, industrial, urbanization and other uses and purposes, and the taxes and maps of zoning measures proposed for the carrying out of any such program."

Purposes. With the usual object of better public health, safety, morals, order, convenience, prosperity, and welfare, the plan made by the commission has the more specific purpose of "guiding and accomplishing a coordinated, adjusted, efficient and economic development," including such things as the "distribution of population and of the uses of land within the state." The act itself contains recognition of the need for rural as well as urban zoning. The plan made by the commission shall provide a procedure to "reduce the wastes which result from either excessive congestion or excessive scattering of population." The statute makes essentially rural land uses (such as forestry, agriculture, and recreation) as well as urban land uses (such as trade, industry and residential areas) the subject matter for the planning procedures of both state and regional planning commissions.

Powers and Functions of State Commission. The method and procedure of arriving at

¹ National Resources Board, *State Planning* (Washington: Government Printing Office, June, 1935), p. 87.

² *Ibid.*, p. 87.

the ultimate state plan are not mandatory; "the commission may adopt the state plan as a whole or, as the work of making the plan progresses, may from time to time adopt a part or parts thereof." The commission may from time to time amend, extend, or add to the plan, or carry any part of the plan into greater detail.

The commission is given the power to create public interest in and understanding of the plan in such ways as it thinks proper. Instructions are given, although not compulsory, suggesting cooperation and coordination with the Tennessee Valley Authority and the neighboring states. Cooperation and coordination with municipal, county, and other local officials are mandatory, and the planning commission must transmit any information possessed by it when requested by any appropriate local official.

In addition, administrative departments of the state government shall keep the state planning commission informed of all projects, improvements, and plans under contemplation and preparation.

Planning Regions. The state planning commission is given the power to create planning regions and to define their boundaries. They may create and establish a regional planning commission in any of the regions thus created. Members of the regional planning commissions are appointed by the state planning commission; their number must be not less than 5 nor more than 15, a majority of whom must be citizens with no full-time salaried public office or employment. The remaining

members may be local officials. The regional planning commissions shall have duties and activities of regional scope analogous to those of the state planning commission in state activities. Regional planning commissions will act at all times under supervision of the state commission.

Promoting Planning Acceptance. In order to encourage application of the state and regional plans to the activities of the various state and local departments, no such department may appropriate money for development or construction of any kind unless such plans have been referred to the state planning commission for their judgment, opinion, and recommendation to the appropriate official. If such an opinion is not forthcoming within 30 days, the requirement is waived. However, the reports, plans, and recommendations of both state and regional commissions are only advisory and none may be mandatory.

Rural Zoning. Although not in itself a zoning enabling act, this statute provides as one of the duties of the various commissions the making of plans for development of their territories, drafting land utilization programs, and the recommendation of zoning measures and procedure to carry the land utilization program into effect. This planning act is the logical first step and seems to point toward a comprehensive rural and urban zoning program for Tennessee.

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The Rural Electrification Act of 1936

THE enactment of the Rural Electrification Act of 1936 (Public Res. No. 605, 74th Congress) marks the beginning of the second phase in the development of the federal program of rural electrification. The first phase began on May 11, 1935 with the establishment of the Rural Electrification Administration by Executive Order No. 7037 under the provisions of the Emergency Relief Appropriation Act of 1935. Mr. Morris L. Cooke, the Administrator under the emergency agency, will continue as Administrator under the new law.

The emergency agency has done a successful job of pioneering. The American farmers as a class have for the first time begun to think, talk, and plan for the economies and comforts of electric light and power. The country as a whole has become conscious of the potentialities of the rural electrification program. Loans totalling about \$15,000,000 were approved from emergency relief funds for 109 projects, designed to reach over 50,000 farms. Several of these projects have been completed and the remainder are either in the course of construction or in stages immediately prior thereto. The new Act went into effect July 1, 1936 and under it 19 projects totalling about \$4,500,000 have been approved. Hundreds of applications, analyzed by the old agency, are under consideration for loans from the new funds.

Rural electrification in America is not an emergency problem. It requires long-range planning and creative thinking on the part of public and private agencies. The scope of the problem is indicated by the fact that nearly 6,000,000 of the 6,800,000 farms in the United States are without central-station service. The problem is not only that of accelerating as rapidly as possible the construction of rural lines. Equally important is the necessity for a long-range plan that will include the lean along with the better territory. There has already been one skimming of the cream. One more skimming, and the great bulk of American farmers might be placed indefinitely beyond the possibility of securing electric service on a self-liquidating basis.

In the Act of 1936 Congress recognized

the need for a 10-year program, making available the advantages of government financing in a field that private capital has been unable or unwilling to enter. The Act requires that all loans shall be self-liquidating within a period not to exceed 25 years and shall be reasonably secured. Despite these limitations restricting the territory that can be served, it is expected that complete coverage of large areas can be attained. In addition to the favorable terms of the government loans, other factors make possible a wide coverage of territory by certain types of borrowers. In the first place there is the absence of any necessity for earning a profit on the part of cooperatives and public bodies. In the second place there is the incentive to liberal use of current on the part of consumers who are also owners of the line and who are responsible for success of the enterprise. The history of many electric cooperatives has shown, further, large economies in operation resulting from low overheads and contributions of labor. Private utility companies, properly seeking a profit, may find that the government program of attractive financing terms for line construction, assistance to the farmer in wiring and appliance loans, and education of the farmer in large utilization of current, will make possible a great liberalization of prevailing extension rules and a comprehensive coverage of territory.

The Act of 1936 authorizes the merger of the temporary agency in the new agency, which is also designated the "Rural Electrification Administration." The functions and powers of the new agency are described briefly in the following statement.

Loans are authorized for construction and operation of generating plants, electric transmission and distribution lines, or systems for furnishing electric energy to persons in rural areas who are not receiving central-station service. Persons, corporations, states, territories, and subdivisions and agencies thereof, municipalities, peoples' utility districts, and cooperative, non-profit, or limited-dividend associations are authorized to borrow from the Administrator with preference given to borrowers other than persons and corporations for profit. Such loans must

be self-liquidating within 25 years, and must have security which, in the judgment of the Administrator, is reasonably adequate. The rate of interest will be the same as the average rate paid by the Government on its long-term obligations issued during the last preceding fiscal year.

The Administrator is also authorized to make loans for wiring consumers' premises and for installation of electrical and plumbing appliances. Such loans may be made to borrowers of funds for line construction, or to any person, firm, or corporation supplying or installing the wiring or appliances. Direct loans to consumers are not authorized. It is expected that government loans of this type will be in amounts sufficiently large to make possible the advantages and economies of large-scale group installation. The terms of such loans and the security therefor shall be such as shall reasonably assure repayment thereof. The interest rate is the same as that for line-construction loans.

The total amount of funds authorized for loans for the 10-year period is \$410,000,000. During the fiscal year ending June 30, 1937 the RFC is authorized and directed to make loans to the Administrator upon approval by the President, not exceeding \$50,000,000. Thereafter, Congress is authorized to appropriate \$40,000,000 annually.

Fifty per cent of the annual sums made available for loans by the Act shall be allotted yearly to the states in the proportion which their unelectrified farms bear to the total of such unelectrified farms in the United States. The other 50% shall be available for loans in the states and territories without allotment, but not more than 10% thereof

may be employed in any one state or in all the territories. Whenever any state fails to use its annual allotment, the amount not used becomes available for loans in subsequent years without allotment, but subject to the same 10% limitation.

The Act contains appropriate administrative and procedural provisions. The term "rural area" is defined as any area of the United States not included within the boundaries of any city, village, or borough having a population in excess of 1,500 inhabitants. For the meaning of the term "farm" the Act adopts the definition contained in the publications of the Census Bureau.

In addition to the power to make loans, the Administration is expressly authorized to make studies, investigations, and reports concerning the condition and progress of rural electrification and to publish and disseminate information with respect thereto.

The new Act makes few changes in the policies established by the temporary agency. The long-term program, however, will make possible the development of these policies under an integrated plan, taking into account the differing conditions in the several states. An adequate satisfaction of the rapidly growing demand for electric service on the part of the rural population will require the effective cooperation of public and private agencies. An opportunity for high statesmanship is afforded, benefiting the farmer, the business community, and the country as a whole.

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The Nebraska Depreciation Case

FOR the moment, at least, an important victory for state regulation was won in the Nebraska depreciation case in the United States Supreme Court.¹ It is a momentary victory because the Court expressly refrained from deciding whether or not federal jurisdiction of depreciation rates is paramount and exclusive when the Federal Communications Commission finally prescribes such rates. But the decision is im-

portant as another link² in the chain by which various state commissions have been trying to shackle the depreciation practices of the Bell System.

The significance of the issue has already been discussed in these pages.³ Only a brief summary will suffice here. For two decades Bell System companies have been using the straight-line depreciation theory. This has resulted in relatively large charges to operating expenses for depreciation and in increasing depreciation reserves, especially

¹ *Northwestern Bell Telephone Co. v. Nebraska State Railway Commission*, Supreme Court of the United States, No. 350, decided March 2, 1936.

² See *Lindheimer v. Illinois Bell Telephone Co.*, 292 U. S. 151 (1934) for another link.

³ J. A. Krug, "Utility Depreciation under Scrutiny," 11 *Journal of Land & Public Utility Economics* 319-322 (August, 1935).

during the depression when property growth and replacements were retarded. In some cases these reserves now amount to from 25 to 30% of the property. Yet in rate cases the companies have claimed property values involving only about 10% observed depreciation, based on engineering estimates. Because of these inconsistent estimates of annual depreciation expense and accrued depreciation, the companies stood to gain a return on approximately 15 to 20% of their property paid for, usually, out of subscribers' revenues reserved for depreciation and reinvested in the property.

In the Nebraska case the Commission found that annual depreciation expense amounting to 3.5% of the depreciable property was reasonable. The Company claimed 4.48%. The Commission was sustained in the Nebraska Supreme Court and the Company appealed.

Three arguments were relied upon by the Company. (1) Due process was violated because the Commission allegedly did not give notice and hearing on 1934 depreciation rates. (2) Federal legislation and action by federal commissions have pre-empted this field of regulation to the exclusion of state agencies. (3) The Commission's order was not supported by evidence and deprived the Company of the right to keep accurate books of account.

Mr. Justice Stone, speaking for the Court, made short shrift of these arguments. The Commission's procedure was satisfactory. Full notice and opportunity for hearing

were given. The Commission specifically referred to the determination of depreciation rates for 1934. The third argument, noted above, was not specifically discussed.

The second point, involving state jurisdiction, was the heart of the decision. After reviewing the federal legislation and actions by the Interstate Commerce Commission and Federal Communications Commission, the prerogative of the state to regulate depreciation rates, at least until a federal agency prescribes such rates, "cannot be gainsaid." In this the Court followed the Smith case.⁴ But the Company went farther and claimed that the I.C.C. classification of accounts, as amended to be effective January 1, 1933, required the Company to use its own depreciation rates. The Court rather emphatically denied this, saying that an accounting requirement did not constitute the prescribing of depreciation rates under the federal act.

Hence, as the law now stands, in the words of the Court: "Pending action by the Communications Commission establishing depreciation rates for telephone companies, state control over such rates remains unimpaired." But the Court added: "We are not called upon now to consider the effect upon state power of such rates when adopted" Was this a warning of the descent of the guillotine upon state jurisdiction over depreciation rates on *intrastate* property, when the Federal Commission chooses to act?

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⁴ *Smith v. Illinois Bell Telephone Co.*, 282 U. S. 133 (1930).

New Unified Air Express System

UNTIL two months ago one of the chief impediments to growth of air express traffic was the lack of unification of the business into a single system. Hitherto there had been two separate systems: General Air Express and the Air Express Division of the Railway Express Agency, with about equal mileage. Competition was bitter and there was little coordination between the two systems. A shipment from an originating point on one system, consigned to a destination on the other, required two waybills and two separate charges.

After months of negotiation the air lines comprising the two systems came to an agree-

ment with the Railway Express Agency. Effective January 31, 1936, all lines which were associated with the General Air Express, except TWA, joined the Railway Express Agency system. As a result, practically all air-line stops are directly connected with this one system. Inasmuch as 23,000 railway stations are connected with the air-line stations by the same Agency, nearly any off-line destination in the United States can be reached easily by the air shipper. The air shipment is consigned to the air-line point nearest the destination city and from there the shipment is carried by rail. Only one waybill and one charge are required for the entire trip. The System also

embraces the Pan American Airways which operates between American and foreign ports.

The relation between the air lines and the Railway Express Agency is contractual. The air lines' part in the transaction is merely the transportation of the shipment from airport to airport. Pick-up, delivery, and transfer service is performed by the Agency. The Agency also collects the charges, provides insurance, keeps the accounts, and advertises and solicits the traffic. Revenue from each shipment is apportioned among the air lines participating in that haul in proportion to the mileage used over the respective lines. However, no carrier is to receive less than 15% of the revenue from a shipment in which it participates.

In consideration of the service which the Express Agency performs it receives as remuneration: (1) all out-of-pocket expenses such as salaries of personnel engaged in the air express division, insurance, reasonable operation expenses, loss and damage, advertising, etc., plus (2) 12½% of what remains of the total revenue after deduction of out-of-pocket expenses. The air line receives 87½% of what remains of the total revenue after deduction of out-of-pocket expenses.

For the present, rates will remain the same as previously. Provision has been made to allow for a classified service based

upon time consumed, i. e., expedited express service and slower freight service. Provisional control over rates is given to the air line. However, the Express Company is not required to charge rates less than twice existing rail express rates without its consent, unless required by law to do so.

Disputed points arising between the air line and the Express Company are settled by arbitration of a committee of one member from the air company, and one from the Express Company. If they cannot agree, the two appoint a third arbiter. If they cannot agree on a third arbiter, either party may ask the chairman of the Interstate Commerce Commission to select a third member.

Provision is made for a Traffic Committee composed of one member from each air line. Voting power in the Committee is in proportion to number of pound-miles of express hauled and line mileage of the individual lines. While this Committee in general governs the policy of the system, yet on certain matters they must consult and cooperate with the Agency.

While it is rather early to appraise the results of the new tie-up, most lines report an enormous increase in air express, some of which is undoubtedly attributable to the new and better coordinated service.

WAYNE L. McMILLEN
American Airlines, Inc.

Public Utility Financing in the Second Quarter of 1936

ALTHOUGH the volume of public utility financing fell decidedly in May and June, particularly in May, from the level reached in April, the total of \$617,019,128 for the second quarter was 45% greater than in the first quarter of this year and almost 2¼ times greater than in the corresponding quarter of 1935.

Thirty-seven issues comprised the quarter's total of utility financing. Of these, 32 were long-term debt issues (including 4 with serial maturities), one was a short-term debt issue, and four were stocks. Two of the long-term debt issues were sold privately. The 37 issues ranged in size from \$96,000¹ to \$65,000,000 with a weighted average of \$16,676,000 per issue, a result very close to the average for the first quar-

ter and for the year 1935.² However, the median for the second quarter was \$11,000,000 against only \$3,600,000 for the first quarter and \$10,000,000 for the year 1935.

Long-Term Debt Financing. The 32 long-term debt issues totaled \$592,296,000 and thus represented 96% of the total of all types. Of this amount, four issues with serial maturities accounted for \$54,250,000 and two issues sold privately accounted for \$28,000,000. The 26 remaining long-term debt issues are summarized in detail in Table I.

The average coupon rate of 3.82% shown in Table I is slightly higher than the corresponding figure of 3.70% found for the first quarter of 1936, whereas the average offering price of 100.69% is 0.40% lower.

¹ Consists of 4,000 no-par preferred shares offered at \$24 per share. The next smallest issue was \$550,000.

² See "Public Utility Financing in 1935," 12 *Journal*

of Land & Public Utility Economics 91-94 (February, 1936) and "Public Utility Financing in the First Quarter of 1936," 13 *Ibid.* 208-210 (May, 1936).

The average underwriting commission of 2.26% is practically identical with that of the preceding period, but average incidental expenses of 0.91% show a marked increase over the previous average of 0.58%. Consequently, average net proceeds to the companies of 97.52% are 0.74% lower than in

the first quarter of this year and the current average cost of 4.00% is 0.18% higher.

The long-term debt financing during the second quarter of this year was of a more general character than during the preceding period. Electric and/or gas, natural gas, water, telephone, transit, and holding

TABLE I. SUMMARY AND ANALYSIS OF LONG-TERM DEBT ISSUES OFFERED PUBLICLY (EXCLUSIVE OF SERIAL MATURITIES), SECOND QUARTER, 1936

Company and Issue	Coupon Rate	Principal Amount	Maturity Date	Month of Offering	Offering Price*	Offering Yield	Underwriters' Commissions*	Proceeds to Company*	Estimated Incidental Expenses†	Net Proceeds*	Cost to Company†
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Brooklyn-Manhattan Tr. Corp. Rapid Transit Coll. Trust Bonds.....	4½	\$65,000,000	5-1-66	April	100	4.50	3	97	0.533	96.467	4.72
Brooklyn Edison Co., Inc. Consol. Mtge. Bonds.....	3¼	55,000,000	5-15-66	May	101½	3.17	2	99½	1.13	98.37	3.34
Consol. Edison Co. of N. Y., Inc. 10-Year Debentures.....	3¼	35,000,000	4-1-46	Apr.	101	3.13	1¾	99¼	0.708	98.542	3.42
20-Year Debentures.....	3½	35,000,000	4-1-56	Apr.	99½	3.54	2	97½	0.708	96.792	3.73
Niagara Falls Power Co. First & Ref. Mtge.....	3½	32,493,000	3-1-66	June	104	3.29	2	102	1.375	100.625	3.47
Wisconsin Power & Light Co. First Mtge., Series A.....	4	32,000,000	6-1-66	June	99½	4.03	2½	97¼	0.48	96.77	4.19
Pacific Gas & Electric Co. First & Ref., Series H.....	3¼	30,000,000	12-1-61	Apr.	102¾	3.60	2	100¾	0.595	100.155	3.74
Pacific Tel. & Tel. Co. Ref. Mtge., Series B.....	3¼	30,000,000	4-1-66	Apr.	101½	3.17	2	99½	0.688	98.812	3.31
Saguenay Power Co., Ltd. First Mtge., Series A.....	4¼	25,000,000	4-1-66	Apr.	100	4.25	2½	97½	0.678	96.822	4.44
Wisconsin Public Serv. Corp. First Mtge.....	4	25,000,000	6-1-61	June	99½	4.03	2½	97	0.80	96.20	4.25
Peoples Gas Light & Coke Co. First & Ref. Mtge., Series D.....	4	22,000,000	6-1-61	May	97½	4.16	2½	95¼	1.364	93.886	4.41
Oklahoma Natural Gas Co. First Mtge., Series A.....	4½	20,000,000	5-1-51	June	98½	4.64	3	95½	2.15	93.35	5.14
Potomac Electric Power Co. First Mtge.....	3¼	15,000,000	7-1-66	June	104	3.05	0.973	103.027	0.71	102.317	3.13
California Oregon Power Co. First Mtge.....	4	13,500,000	4-1-66	Apr.	97½	4.15	2½	95	0.991	94.009	4.36
Western Massachusetts Cos. Coupon Notes.....	3¼	11,000,000	6-15-46	June	101¼	3.10	1¾	99½	0.35	99.15	3.35
Minneapolis Gas Light Co. First Mtge.....	4	11,000,000	1-1-50	May	102½	3.76	1	101½	0.812	100.813	3.92
Wisconsin Gas & Electric Co. First Mtge.....	3½	10,500,000	4-1-66	Apr.	101½	3.42	2	99½	0.89	98.61	3.58
California Water Serv. Co. First Mtge., Series B.....	4	10,000,000	5-1-61	June	102½	3.84	2	100½	0.96	99.54	4.03
Oklahoma Natural Gas Co. Convertible Debentures.....	5	10,000,000	5-1-46	June	100	5.00	3½	96½	2.15	94.35	5.75
El Paso Natural Gas Co. First Mtge., Series A.....	4½	7,500,000	6-1-51	June	98½	4.60	3	95½	1.35	94.15	4.91
Convertible Debentures.....	4¾	3,750,000	6-1-46	June	100	4.75	3½	96½	1.35	95.15	5.38
Rlwy. Equip & Realty Co., Ltd. Equipment Mtge.....	4½	3,500,000	3-1-46	Apr.	100	4.50	3	97	1.571	95.429	5.09
Otter Tail Power Co. First Mtge.....	4	3,000,000	7-1-61	June	100	4.00	4	96	0.89	95.11	4.32
St. Joseph Water Co. General Mtge., Series A.....	4	2,600,000	4-1-66	Apr.	102	3.89	2¾	99¼	0.976	98.274	4.10
Santa Barbara Tel. Co. First Mtge., Series C.....	3½	1,460,000	1-1-66	Apr.	102½	3.37	2	100½	0.99	99.51	3.53
Ashland Home Tel. Co. First Mtge., Series A.....	4½	743,000	4-1-61	June	100	4.50	4	96	1.984	94.016	4.92
Weighted Averages.....	3.82				100.69	3.78	2.26	98.43	0.91	97.52	4.00
Totals‡											

* Expressed in percent of principal amount as shown in Column (C).

† Computed on a bond yield basis using net proceeds per column (K).

‡ Pro-rata share of total expenses on two or more issues offered by the same prospectus. Proration made on basis of principal amounts.

§ Totals, which represent summation of actual amounts for individual issues, are as follows: Principal Amount, \$510,046,000; Offering Price, \$513,557,970; Underwriters' Commissions, \$11,534,980; Proceeds to Company, \$502,022,990; Estimated Incidental Expenses, \$4,610,101; Net Proceeds, \$497,412,889.

TABLE II. SUMMARY OF ISSUES WITH SERIAL MATURITIES, SECOND QUARTER, 1936

Company and Issue	Coupon Rate	Principal Amount	Maturity Date	Month of Sale	Price	Yield	Cost
Brooklyn-Manhattan Tr. Corp. Rapid Tr. Coll. Trust.....	% 3 and 3½	\$45,000,000	5-1-37/51	April	% 98 to 104½	% 0.75 to 3.93	% 2.19 to 4.12
Saguenay Power Co., Ltd. Serial Notes.....	2¼ to 4	5,000,000	6-15-37/46	April	100	2.25 to 4.00	3.34 to 4.32
Wisconsin Power & Light Co. Serial Debentures.....	4	3,700,000	6-1-37/46	June	97.99 to 104.19	1.25 to 4.25	4.06 to 4.53
California Water Serv. Co. Serial Notes.....	1½ to 4¼	550,000	5-1-37/46	June	100	1.25 to 4.25	3.08 to 4.59
Total.....		\$54,250,000					

companies contributed to the total for this quarter, whereas in the earlier period electric and/or gas companies were predominant.

It is also noticeable that for the second quarter companies of smaller size and of a somewhat less well entrenched credit position than the nation's top ranking utility corporations were in the majority. Nevertheless, the present recovery era's record of 3.40% as the lowest cost rate was bettered by 4 issues during the second quarter; a new low of 3.13% was set by the Potomac Electric Power Company issue.

Other features of public utility financing which became more pronounced during the period under review are: (1) the flotation of two issues, such as a mortgage and a debenture or a mortgage and a serial issue, under the same prospectus;³ (2) increased use of serial issues, thereby providing for reduction in funded debt over the next 10 to 15 years; (3) a decline in the relative importance of private sales; and (4) an increasing number of operations whereby all or practically all the funded debt of a company is refinanced.

Other Financing. The one short-term debt issue consisted of \$600,000 Otter Tail Power Company 5-year 3% Secured Notes offered at 100. The Company received 97%

³ Saguenay Power Company, Ltd. sold 4 issues under one prospectus but 2 were offered in Canadian funds and were therefore not included in the compilations for the second quarter.

from the underwriters and net proceeds after estimated expenses were 96.11%, on which the cost is 3.86%. The two long-term debt issues sold privately were \$3,000,000 Long Island Lighting Company First and Refunding Mortgage, Series D, 4% Bonds of 1961 sold at 104 to yield 3.75% and \$25,000,000 Public Service Electric & Gas Company First and Refunding Mortgage 3¼% Bonds of 1966.

The issues with serial maturities are summarized in Table II. Considerable variation of practice with respect to the serial issues may be noted. In some cases the coupon rate was varied according to maturity and the offering price held constant for all series; in another case the coupon rate was the same throughout, but the offering price was changed according to maturity; and in another instance both the coupon rate and offering price were varied. On three of the four serial issues underwriters' commissions were a flat rate for the entire issue, but on one issue the amount was different on almost every maturity, with zero and minus commissions given on the later maturities, although the average rate for the entire issue was positive, of course. The weighted averages of offering prices, underwriters' commissions, etc., on the four serial issues are given in Table III.

Capital stock issues, all of which were preferred series, represented only a small portion of the total utility financing during the second quarter (Table IV). The bulk

TABLE III. ADDITIONAL DATA ON SERIAL ISSUES

Issue	Offering Price	Underwriters' Commissions	Gross Proceeds	Incidental Expenses	Net Proceeds
Brooklyn.....	101.420%	1.625%	97.795%	0.533%	99.262%
Saguenay.....	100.060	1.000	99.060	0.678	98.322
Wisconsin.....	101.160	1.150	100.000	0.480	99.520
California.....	100.000	1.500	98.500	0.960	97.540

TABLE IV. SUMMARY OF CAPITAL STOCK ISSUES, SECOND QUARTER, 1936

Company and Issue	Dividend Rate	Amount Involved	Month of Sale	Price (Dollars per Share)	Yield	Cost
Central Ill. Light Co. 4½% Pfd., \$100 Par	4½%	\$11,369,328*	April	\$102	4.4%	4.56%
Dayton Power and Light Co. 4½% Pfd., \$100 Par	4½%	10,250,000†	June	102½	4.39	4.53
Associated Telephone Co., Ltd. Pfd., \$1.25 Series, No Par	\$1.25	2,657,800‡	April	25	5.00	5.31
South Shore Utilities Associates Conv. \$1.50 Pfd., No Par	1.50	96,000§	May	24	6.25	
Total		\$24,373,128*				

* 111,464 shares at offering price of \$102; Underwriters' commissions were \$2.90 per share and expense \$0.393 per share.

† 100,000 shares at offering price of \$102½; Underwriters' commissions were \$2.50 per share and expense \$0.59 per share.

‡ 106,312 no-par shares at the offering price of \$25; Underwriters' commissions were \$1.25 per share and expense \$0.207 per share.

§ 4,000 shares at the offering price of \$24; other details not available; this issue was not registered with the Securities and Exchange Commission.

¶ This total is \$250,000 greater than total stock financing reported by the *Commercial & Financial Chronicle* since their compilation included the Dayton issue at its par value.

of the proceeds from these stock issues was used to retire other preferred stocks with 6% and 7% dividend rates; only the smallest of the four issues was devoted entirely to new capital purposes. The low yields of less than 4½% on the two largest issues clearly indicate present money market conditions and the favorable terms upon which strong operating companies can obtain funds.

Index Number of Volume

The index numbers⁴ of volume of public

⁴For a description of the index and back figures through 1919 see "The Volume of Public Utility Financing, 1919-1935," 11 *Journal of Land & Public Utility Economics* 352-356 (November, 1935) and references cited in footnote 2, *supra*.

utility financing for the second quarter of 1936 are as follows:

Period*	Total Capital	New Capital	Refunding Capital
April.....	192.44	11.05	975.64
May.....	70.79	2.32	366.42
June.....	113.01	11.99	549.22
2nd Quarter.....	125.41	8.45	630.43

* The bases for these index numbers are as follows: monthly average, 1926, equals 100 for the monthly series; quarterly average, 1926, equals 100 for the quarterly series; and the year's total for 1926 equals 100 for the annual series.

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The Wisconsin Telephone Case

THE state-wide investigation of the Wisconsin Telephone Company by the Public Service Commission of Wisconsin, begun on July 29, 1931 and ended by a final order issued on March 24, 1936, has attracted country-wide attention. It is not only the most ambitious undertaking of the rejuvenated Commission, but also a bellwether of depression rate reduction cases. It may be considered a thorough test of whether a vigorous and progressive state commission may effectively regulate

public utilities, and especially telephone companies, within the present framework of public utility law.

Prior to its final order the Commission issued three temporary orders pending completion of the investigation, but each of these was made ineffective by temporary restraining court orders. In the main, the substance of these orders is included in the final order. The Commission's first order,² however, was a regulatory bombshell, for

¹ In the Matter of the State-wide Investigation, on the Commission's Own Motion, of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company, (2-U-35). Final order, March 24, 1936;

Re Wisconsin Telephone Company, 13 P. U. R. (N. S.) 224 (1936).

² Re Wisconsin Telephone Company, P. U. R. 1932 D 173 (June 30, 1932).

it required a 12½% emergency cut in exchange rates, partially upon the ground that economic deflation had diminished the value of the service to the consumer as evidenced by a decline in his ability to pay. Protests from those who saw in the Commission's action a threat to continuation of orthodox procedures of rate-making³ were matched by the delight of those who saw in it an avenue of escape from the grip of the rule of fair return on fair value. Reading of the final order, indicates, however, that perhaps these fears and hopes were not well founded, for in the main, the final 8% revenue reduction ordered by the Commission relies not upon value of the service, but rather upon disallowance of operating expenses, property values, and returns which were unreasonable and abnormal in view of price levels and operating conditions of the period 1931 to 1935.

Since the scope and detail of the Commission's work in the *state-wide* case hardly can be listed here, only its major aspects will be mentioned. At the outset the Commission insists that it is dealing with local exchange rates as separate from long-distance rates (which remain undisturbed) on the ground that a monopolized class of business cannot be required to bear the losses suffered by the Company upon its highly competitive long-distance traffic. This view is consistently applied in the allocation of operating expenses and property values as between the two classes of business.

Operating Expenses. Of prime importance is the work of the Commission in determining the reasonableness of operating expenses of the Wisconsin Telephone Company; in far too many rate cases such details receive only passing attention. The maintenance and depreciation expenses of the Wisconsin Company amounted to almost ½ of total operating expenses, and the Commission therefore scrutinized them in great detail in order to adjust the actual expenditures to reasonable requirements. The record

indicated that maintenance and depreciation expenses had increased continuously during the period of the investigation, to a level considerably above that of 1925-1926, despite the general decline in prices. Reviewing the major causes for increases in maintenance charges (too varied and complex to be summarized here), the Commission finds several abnormal or transitory elements which it adjusts in making an estimate of maintenance expenses in the future. Its final judgment is supported by the fact that in the latter years of the investigation the Company had begun to adjust its actual expenses in the direction indicated by the Commission in its preliminary orders.

Depreciation. In determining proper annual charges for depreciation the Commission breaks from the rule established by the Supreme Court in *United Railways and Electric Company v. West* (280 U. S. 234 (1930)), that annual charges for depreciation expense should be based on present value. It contends that book value is a far more simple, practicable, and equitable depreciation base than is present value, which fluctuates in amount thus multiplying the difficulties of estimating and measuring annual depreciation. Thus this case again squarely raises the issue of a proper base for calculating depreciation expense, and perhaps may afford the Supreme Court an opportunity to modify completely or even abandon the present-value basis, which apparently it began to do in the Lindheimer case.⁴

The actual depreciation rates applied by the Commission were those certified to the Company after an investigation of its depreciation experience and accounting practices which, although technically a separate proceeding, was in effect a part of the *state-wide* investigation.⁵ The Commission there required the Company to continue the straight-line method of accounting, but made numerous reductions in the depreciation percentages to be applied in the future.⁶

³ William A. Prendergast, "The 'Economic Emergency' as a Factor in Rate Making," 10 *Public Utilities Fortnightly* 243-253 (September 1, 1932); Henry C. Spurr, "Value of the Service as a Basis of Rate-making," 10 *Public Utilities Fortnightly* 363-373 (September 29, 1932).

⁴ *Lindheimer v. Illinois Bell Telephone Company*, 292 U. S. 151 (1934). For a discussion of the Lindheimer case as an overthrow of the *United Railways*

case see Howard, S. E., "The Rate Base and the Depreciation Base in Recent Public Utility Cases," 26 *American Economic Review* 258-271 (June, 1936).

⁵ *In the Matter of the Average Annual Rate of Depreciation of Wisconsin Telephone Company* (2-U-502), April 30, 1935 and December 20, 1935.

⁶ See J. A. Krug, "Utility Depreciation Practices under Commission Scrutiny," 11 *Journal of Land & Public Utility Economics* 319-322 (August, 1935).

License Fee Contracts. In its action on the reasonableness of operating expenses, the Wisconsin Commission has struck another blow at the famous license fee contracts of the American Telephone and Telegraph Company. In the present case, the Commission found that the propriety of the license contract payments by the Wisconsin Telephone Company to the American Telephone and Telegraph Company had not been proved by a showing of the costs to the A. T. and T. of rendering the services, as was required by the Supreme Court in the Smith case (282 U. S. 133 (1930)). Witnesses for the A. T. and T. introduced evidence on the costs of rendering license contract services, which it considered to be 95% of the sum of all expenses of the general department (which conducts all business of the A. T. and T. except for the long-distance business of the Long Lines Department), plus the following: all taxes except those of the Long Lines Department, the cost incurred in holding funds available for subsidiaries, the cost of carrying investment in physical property, and the cost of temporary financing. Such license contract costs were then allocated to licensee companies, considering Long Lines as a licensee company.

Thus, in effect, virtually only 5% of the A. T. and T. expenses (outside its long distance operating business) was allocated to performance of its functions as a holding company, in which capacity it held in 1934 approximately \$1,900,000,000 of common stock in associated telephone companies, which yielded it \$115,409,048 in dividends. In contrast, on the above basis of allocating costs, in 1934 the license contract services allocable to associated companies cost \$22,029,066, for which the parent company received only \$13,389,797. Hence it seemed to the Commission that the apportionment of practically all expenses of the General Department of A. T. and T. was predicated upon the belief that the largest corporation in the United States controlled its vast domain and collected hundreds of millions of dollars in dividends annually simply as incidental and secondary to losing some \$8,000,000 in rendering services to associated companies. The Commission was not willing to swallow this assumption, and therefore likewise considered the A. T. and T. cost allocation untenable. Indeed, the record showed that a substantial portion of the

activities of the General Department were carried on in behalf of the holding company function of the Company, and that assignment of certain taxes and costs of holding funds available for associated companies were clearly not a license contract cost. On these grounds the Commission held that the cost of rendering license contract services had not been shown, and therefore completely disallowed the 1½% license contract payment as a proper operating expense for rate-making purposes. Clearly, the ruling of the Wisconsin Commission must stand if the principle of the Smith case is to remain unvitiated by arbitrary allocations of practically all A. T. and T. general expenses to associated company subscribers.

Valuation. The closed Bell system received another rude buffet when, in ruling on property value, the Commission refused to accept for appraisal purposes current prices on equipment manufactured by the Western Electric Company, as being abnormal and monopolistic. The Commission's engineer, in arriving at the reproduction cost new of the property, applied the 1929 Western Electric price list on materials and equipment, whereas the telephone company's engineer applied the higher 1935 price list, in determining present value; from this cause alone there ensued a difference of some \$3,500,000 between the two estimates. The 1935 prices of the Western Electric Company were higher than 1929 prices because, having a monopoly of Bell business, it had twice advanced its prices 10% in order to recoup the losses incurred on its low depression output. In view of the decline in the general level of prices, the Commission rejected use of the 1935 price list, in favor of the 1929 list, even though the reasonableness of the latter prices had not been proved by any actual showing of Western Electric's costs of production. The 1929 list was regarded as applicable in reproducing a large telephone property which would call forth a large volume of production by the Western Electric Company. To allow use of the higher price list, in face of decreased prices elsewhere, would be to permit the Western Electric Company, an unregulated monopolistic enterprise, to mark up the reproduction cost of telephone companies the country over. In its decision the Wisconsin Commission is in step with other commissions which recently have refused to sanction use

of the arbitrarily increased Western Electric prices in property appraisals.⁷

Recent telephone cases have revealed a fundamental inconsistency on the part of the companies as to the determination of accrued depreciation for valuation purposes, and the building up of depreciation reserves out of annual charges to expenses.⁸ The Wisconsin Telephone Company likewise took the inconsistent position, now familiar to all, that that depreciation to be deducted from reproduction cost should be "existing depreciation" as determined by observation (equivalent to 10% of reproduction cost new) and had no relationship to depreciation reserve (equivalent to 34% of book cost) which had been built up out of annual charges to expenses. The Commission, however, in pursuit of its well-defined policy, insisted that "depreciation deducted for valuation purposes must be consistent with the amount of depreciation included in operating expenses." It did, however, adjust the depreciation reserve figure to reflect the fact that depreciation expense charges of the last few years had been higher than they should have been. A proper deduction as of the date of valuation was determined by adding to the required depreciation reserve in 1931 the net additions based on rates of depreciation theretofore found reasonable for expense purposes. This resulted in 28.47% accrued depreciation for the year 1934.

Going Value. The Company's claims for a substantial allowance as going value were thoroughly demolished by the Commission, which held that it had given effect to the value of the property as a going concern in arriving at value of the tangible property, in which it had taken cognizance of book investments and values which included costs of developing personnel and organization. In short, the Commission ruled out all the hocus-pocus which enters the usual claim for going value.

Rate-Base and Rate of Return. In summing up the evidence and arriving at a fair rate-base, the Commission adopted a figure which was substantially below the Company's claimed reproduction-cost rate-base, somewhat above the Commission's engineers' estimate of reproduction-cost rate-base, and slightly less than depreciated book cost.

⁷ For a review of important recent cases see Richard A. Harvill, "Valuation and Rate-Making for Telephone Companies," 12 *Journal of Land & Public Utility Economics* 99-107 (February, 1936).

⁸ Harvill, *loc. cit.*

Far too often commissions have split hairs on valuation, only to give away an arm's length in the rate of return. The present case illustrates a marked departure from the old practice of guessing at over-all "fair" rate of return, and is an approach to a realistic rate of return based upon necessary present costs of capital.

The Company's claim to a fair return of over 6% and its citation of costs of capital to the parent company (reflecting dividends paid by the subsidiary) were held to be without merit in view of prevailing utility bond yields of less than 4%. Instead of historical costs of capital, determined largely for benefit of the parent company, the Commission relied upon studies of the capital costs derived from a conservative reproduction of the Company's capital structure, based upon current costs of borrowed funds and preferred stock capital, plus a generous margin above these levels for common stock equity. In 1935 this hypothetical over-all return ranged from 4.5% to 5.75%, depending upon the assumptions used. The risk element so often stressed in fixing the rate of return is dismissed in this case by reference to the extremely successful financial record of the Company, and its entrenched legal and economic position in the market. By deducting an allowance for income taxes before computing a reasonable rate of return, such income taxes being in reality a tax exemption of the stockholder which is a part of his actual return, the Commission in effect allows a rate of return higher by .66% than that it finally fixes.

Thus giving weight to present-day conditions the Commission finds a fair rate of return on the rate-base to be 5½%. This is not the differential rate of return hoped for by some economists, in the sense that it does not definitely fix a set rate of return on each segment of the capital structure, but it is a differentiated rate of return in the sense that it gives weight to the actual costs of attracting various parts of the capital structure.

Several other aspects of the Commission's decision are of great interest, but cannot be discussed here. Suffice it to say that, in common with the views and actions of the Commission already summarized above, they reveal unmistakable symptoms of a renaissance of the regulatory process in Wisconsin.

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Urban Land

Wenzlick, Roy. *THE COMING BOOM IN REAL ESTATE: AND WHAT TO DO ABOUT IT.* New York: Simon and Schuster, 1936. pp. 48. \$1.00.

This book is a short discussion of the future course of real estate activity and real estate prices in the next few years, based on the analysis of real estate cycles which has been made by the author. While his observations have been directed more particularly to real estate cycles in St. Louis, he has also taken into consideration similar movements in the country as a whole. He calls attention to the trend of population from city to country since 1920 and predicts that soon a reverse of that trend will increase the demand for construction in urban areas. He expects that the housing shortage will become acute at an early date and, consequently, rents and costs of construction will rise.

The chief data presented in the book are found on the large chart on pages 24 and 25 which shows the course of real estate activity in St. Louis from 1875 through 1935 and likewise the course of foreclosures for the same period. This chart gives a view of the length of the periods of recovery and decline in real estate and is probably the basis for some of the author's conclusions as to the length of time involved in the present real estate recovery movement. He predicts, for example, that the general level of prices by 1938 will be equal to the level of prices in 1926 and expects the present real estate boom to reach its peak in the early 1940's. The book contains advice in regard to building and investments in real estate paper during the period of the boom.

While the book contains many observations of a man informed in the real estate field, no very compelling statistical reasons are given for his conclusions that wholesale prices will reach the 1926 level by 1938 nor does there appear a very definite statistical inference as to the time required for the present real estate cycle to reach its highest development. For a brief consideration of the present real estate situation, however,

the publication is commended as being an informed discussion.

SPURGEON BELL

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Paver, John and McClintock, Miller. *TRAFFIC AND TRADE.* New York: McGraw-Hill Book Co., Inc., 1935. pp. viii, 136. \$4.50.

Dr. McClintock, director of the Bureau for Street Traffic Research of Harvard University, is also well known as a traffic consultant for a number of the larger cities. The objects of the present study, sponsored by a group of national advertising interests, are set forth in the titles to two parts of the book—namely, "The Space and Time Distribution of Retail Trade" (Part II) and "Adjustment of Distribution Methods to Moving Buying Power" (Part IV). The technique is very interesting but so novel and intricate that any analysis is impracticable in this short review.

The authors are undoubtedly satisfied that the data forming the basis of their various charts are sufficiently broad and typical, but it would be interesting to know what such data include. The study develops four indices for determining the "primary retail trading area" of a city, which in the case of Indianapolis appear to coincide and check each other remarkably closely (page 70). It would be interesting to compare the area thus defined with one indicated according to other methods.

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Bodfish, Morton, editor. 1935 *BUILDING AND LOAN ANNALS.* Chicago: United States Building and Loan League, 1936. pp. xi, 903. \$5.00.

This sixth volume in the series of Building and Loan Annals follows the pattern of its predecessors. Its contents, however, reflect the change which the year brought to the building and loan business. Much more space is devoted in this than in recent volumes to the business-getting and business-building problems of savings and loan. Less

attention is given to the governmental agencies and emergency measures which characterized the depression years.

As usual the volume contains the latest complete statistical data on building and loan. These data record an improvement over the preceding year, not in all aspects, but in by far the majority of the measures of building and loan strength. Also included are digests of the most recent building and loan legislation in the various states.

HELEN C. MONCHOW

Of the Journal staff.

Land Resources

Murchie, R. W. *AGRICULTURAL PROGRESS ON THE PRAIRIE FRONTIER.* Toronto: Macmillan Co., 1936. pp. xii, 344. \$4.55.

Volume V in the series "Canadian Frontiers of Settlement" is an interesting record of agricultural progress in western Canada in general and discussion of problems of land settlement, utilization, and tenure in particular. This volume published in 1936 by R. W. Murchie and his collaborators includes the findings of surveys carried on by the Pioneer Problems Committee with whom the Bureau of Economics at Ottawa and the departments of agricultural economics of the provinces of Manitoba, Saskatchewan, and Alberta cooperated.

The first seven chapters cover briefly the development of agriculture in the whole area, production trends, utilization of land, and land tenure. The remaining nine chapters give results of the surveys carried on in selected areas in the three provinces, while the expansion in use of mechanical equipment is recorded in the appendices.

The areas selected for surveys include newly settled areas toward the northern limits of settlement and also some older sections where for various reasons resettlement is necessary. Surveys include a description of soil topography, water supply, length of growing season, and origin of settlers. Type of farming, utilization of land, capital invested, indebtedness, and farm accounts for the year 1930-31 are given special attention and methods of enlargement of holdings, increase in net worth and living expenses, both home provided and purchased, are also included.

Results of surveys provide valuable source material particularly on problems of land

utilization and farm management. They also afford information on problems of land tenure, settlement, and resettlement which were discussed in the earlier chapters and which merit more detailed comment even in a brief review.

A series of maps, tables and charts records the statistical development and status of the three provinces in 1931 with respect to density of population, size of farms, land utilization, and returns received for the years 1930 and 1931. Unfortunately, figures for gross returns are given for these years without stressing the point that these figures make no deduction for seed grain and feed fed to live stock. An excellent opportunity was here lost to expose the practice too frequently followed of providing a rather rosy picture of farming by using gross returns which are the result of considerable double counting.

The longest and most analytical chapter is the one on land tenure. Results are recorded by census subdivisions, an essential detail in such an expansive area. Trends in tenure are presented regionally and discussion is given of the variation in tenure according to type of farming, value of land, size of farm, and ethnic origin of the settler.

One chapter is devoted to a consideration of ranching. The early development, subsequent decline, and present status of this industry are given. The shift from ranching to farming and the increase in use of mechanical devices are both important factors in the status revealed by the surveys.

The trend of development portrayed in the early chapters of this book provides the necessary historical background of many of the present problems revealed in the reports of the surveys which constitute the major portion of the work. This trend records the decline of ranching and the expansion of the wheat area accelerated by mechanical devices. The direction and methods of this expansion have brought about problems of capital required in the type of farming evolved, the indebtedness existing, the difficulties of securing an acceptable standard of living and providing community services for the comparatively sparse population that the growing of grain largely by machine methods is able to sustain. Much light is shed on these present problems in the later chapters of this book which is a source of valuable information for all

students of land and farm problems generally.

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Public Utilities

Sharfman, I. L. THE INTERSTATE COMMERCE COMMISSION. Part III, Vol. B. *New York: Commonwealth Fund, 1936. pp. xviii, 833. \$5.*

This volume is a step toward the completion of Professor Sharfman's comprehensive study of the Interstate Commerce Commission. Part One traced the legislative history of the Interstate Commerce Act. Part Two was an analysis of the Commission's jurisdiction over interstate commerce. Part Three pertained to the administrative functions of the Commission. Volume A of Part Three dealt with the valuation of the property and with matters of finance, construction, and abandonment. The current volume pertains to the primary task of the Commission—the exercise of its powers over rates. It includes an analysis of the principal considerations involved in the problem of rate-making, traces the history of the great advanced rate cases prior to the Transportation Act of 1920, and considers the exercise of the power of rate-making under the authority of the Transportation Act in the five major investigations conducted pursuant to it. The volume contains also an analysis of the experiment with the recapture of excess earnings under the Transportation Act of 1920 and of the attempts in the control of rate divisions.

Professor Sharfman's work is done with excellent thoroughness. One who participated in one of the several major parts of the Commission's activity which he discusses and who was intimately in touch with its development will find that Professor Sharfman's discussion reflects with photographic fidelity all the detail of the unfolding with a completeness and with a wealth of selected material which is remarkable. The book, consequently, is an excellent source book and history. As such, and were it nothing more, it would be invaluable. Professor Sharfman, however, goes farther; he analyzes the interplay of basic theories and ideas, the action of which forms the woof and warp of these problems. Whether his judgment with reference to the soundness

of the Commission's treatment of these principles, theories, and positions is the judgment which you and I would reach seems to me to be quite immaterial. For here is a highly controversial field, with the widest conflict of views regarding issues which lie in planes where only the amateur will expect exactitude, and the Commission frequently renders six to five decisions. Here Professor Sharfman has founded his conclusions on a full factual basis and a breadth of analysis and has proceeded with independence. He has made a splendid contribution to the unfolding of the railroad problem.

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Dimock, Marshall E. DEVELOPING AMERICA'S WATERWAYS. *Chicago: University of Chicago Press, 1935. pp. xv, 123. \$1.50.*

This monograph represents a survey of the Inland Waterways Corporation conducted at the invitation of the Secretary of War. The investigation was financed by the Public Administration Fund of the University of Chicago; its publication was authorized by the Secretary of War. The survey was designed to answer two questions:

"In the first place, has inland waterways transportation proved economical and satisfactory as compared with other forms of transportation and how should it be coordinated with the transportation system as a whole . . . Secretary Dern's principal concern was with the actual management of the corporation and the possibility of suggesting modifications and improvements. The present study, therefore, is primarily one in public administration. Therefore, although we have dealt with the general question of economy, . . . the reader should bear in mind the fact that larger questions of constitutional and administrative relationship and principles of administration are the self-imposed limits of the present investigation."

The volume presents a 40-page chapter on "The Economics of River Transportation" and then three chapters on the administration and control of the Inland Waterways Corporation. A chapter of "Conclusions and Recommendations" and a "Postscript," telling of the adoption by the Corporation of certain of the author's recommendations, conclude the study.

With respect to the administration and control of the Corporation the author concludes that there is ample room for improvement in economy and organization. So far as the reviewer can judge, the numerous suggestions offered for changes in policy

are for the most part sensible and fairly well grounded. To an important extent they appear to have been adopted by the Corporation and its governor, the Secretary of War.

It is well, however, that the author stressed that "larger questions of constitutional and administrative relationship and principles of administration [rather than 'the general question of economy'] are the self-imposed limits of the present investigation" (p. xi). For the requested "diplomatic immunity" from criticism is sorely tried by the pages ($\frac{1}{2}$ of the total) in which he essays to solve the perplexing problems of comparative transport costs and transport coordination. The analysis here is characterized by sweeping assertions, some of which are highly questionable, and by statements which indicate a lack of acquaintance with rudimentary aspects of transport economics.

Space permits only a few specific illustrations: "... there is no question in most of these [foreign] countries that water transportation is 'economical' ..." (p. 5); reference to "a constant increase of tonnage handled" during the past 16 years is followed (p. 12) by a recognition that the peak in tonnage, in fact, was reached in 1928 and has not been equalled since; "there is reliable evidence that the railroads paralleling the Mississippi waterway have been permitted to slash their rates in order to prevent the river carriers and road haulers from getting any more business than necessary, while the rates charged in the interior (particularly those in the plateau and intermountain territory) have been higher as a result" (pp. 20-21, italics mine). Surely anyone familiar with the economic aspects of rate-making would not venture such a statement. A curious misconception is displayed by the author (pp. 34-35) in criticizing the use by other authors of a distance circuitry factor in comparing costs of rail and water transport.

The really distressing thing about the monograph is the illustration it gives of the frequent inability of those working in the social sciences to recognize that many topics require the cooperative effort of specialists of complementary training. If one does not wish to enlist the assistance of others, then he should be prepared to devote a considerable amount of time to the mastery

of a field related to, but distinct from, his own.

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Public Finance

Fagan, Elmer D. and Macy, C. Ward.
PUBLIC FINANCE. New York: Longmans,
Green and Co., 1934. pp. vi, 960. \$4.75.

This volume of selected readings on public finance contains much that will interest students of land and public utility economics, particularly the selections on public works and the business cycle, assessment of real property, the general property tax, the classified property tax, special assessments, tax delinquency, incidence of real estate taxes, the single tax and the increment tax, taxation of natural resources, and taxation of public utilities. This book will not, however, appeal to the reader who wants no more than on-the-surface descriptive matter. Selections have been made mostly from writings which approach the problems of public finance analytically and in terms of basic economic principles.

Several features combined make this volume well suited for use as collateral reading in public finance. Questions and problems for discussion, suggestions for research, and bibliographical notes at the end of each chapter were prepared especially for the student. The general arrangement is orthodox, following that of accepted textbooks in this field. The character and scope of the selections are both good. Moreover, considering the wide variety of sources and topics, the editors (professors of economics at Stanford University and Coe College, respectively) have by introductory sections, transitional paragraphs, and guide footnotes tied the whole together with remarkable continuity.

The technical student of public finance will find this book handy, since it successfully encompasses between two covers excerpts from much excellent but scattered literature. A one-volume edition has its limitations, of course. "Favorites" will be found missing. On the other hand, the catholic taste of the editors will guarantee these readings a place on many a public finance five-foot shelf.

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